GROUP 52B

SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

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⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

⚠ WARNING

- ***Carefully read and observe the information in the SRS SERVICE PRECAUTIONS prior to any service.***
- ***For information concerning diagnosis or maintenance, always observe the procedures in the SRS Diagnosis or the SRS Maintenance sections, respectively.***
- ***If any SRS components are removed or replaced in connection with any service procedures, be sure to follow the procedures in the INDIVIDUAL COMPONENT SERVICE section for the comportments involved.***
- ***If you have any questions about the SRS, please contact the MMNA Tech Line.***

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GENERAL INFORMATION

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⚠ ***WARNING***

Improper service could result in serious injury of the service personnel or the passenger.

The SRS is designed to supplement the front seat belts. It reduces injury to the driver(s) and the front passenger(s) by deploying air bag(s) in case of a frontal collision.

The SRS front air bags from an advanced air bag system together with sensors at the vehicle and sensors attached to front seats.

With the knee air bag system, when a frontal impact exceeds the threshold, the knee air bag installed to the instrument panel cover lower is instantaneously inflated to protect the passenger's feet (knee and leg).

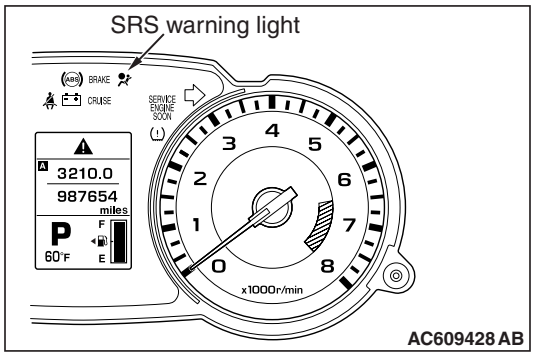
Side-airbag systems in the front seats are activated when side impacts exceed a criteria to protect the occupants' upper bodies.

The curtain air bag system operates together with the side-airbag to protect the heads of passengers in the front and second seats.

The seat belts with pre-tensioner work simultaneously with the SRS. The seat belt incorporating the pre-tensioner automatically winds the seat belt upon front impact to reduce forward shifting of the driver's and passenger's. The seat belt use status is used to control the activation and deactivation of the pre-tensioner.

The SRS consists of driver's and passenger's (front) air bag modules, knee air bag module, side-airbag modules, curtain air bag modules, SRS air bag control unit (SRS-ECU), two front impact sensors, two side impact sensors, SRS warning light, passenger's air bag OFF indicator light, passenger's seat belt warning light, clock spring, seat belt pre-tensioner, seat belt switch, seat slide sensor, weight sensor and occupant classification-ECU. Driver's and passenger's (front) air bag modules are located in the center of the steering wheel and above the glove box. The knee air bag module is installed to the instrument panel cover lower under the steering column. Side-airbags are located inside the front seatback frame. The curtain air bag module consists of an air bag, an inflator, and the fixing gear relating to those parts, and is installed in the roof side sections (from the driver's and the passenger's front pillars to the rear pillars). Each air bag consists of a folded air bag and an inflator unit. The SRS-ECU placed on the forefront of the floor monitors the system and has a front air bag safing G-sensor, front air bag analog G-sensor and a side-airbag safing G-sensor. The front impact sensor is assembled in the front end upper bar to monitor impact in case of front impact. The side impact sensors inside the center pillars monitor the shock incurred by the sides of the vehicle. The SRS warning light on the combination meter indicates the operational status of the SRS. The clock spring is installed in the steering column. The seat belt pre-tensioner is built into the driver's and passenger's front seat belt retractor. The seat slide sensor is installed at the seat adjuster section of the driver seat in order to detect the driver seat slide position. The weight sensor is installed underneath a rail of the passenger seat to detect the load on the seat. The passenger's air bag OFF indicator light is installed to the lower left of the center panel, and illuminates when the passenger seat airbag is inactive. The passenger's seat belt warning light is installed to the lower right of the center panel, and illuminates when the passenger is not wearing the seat belt. The seat belt switch detects whether the seat belt is used.

Only authorized service personnel should do work on or around the SRS components. Those service personnel should read this manual carefully before starting any such work.



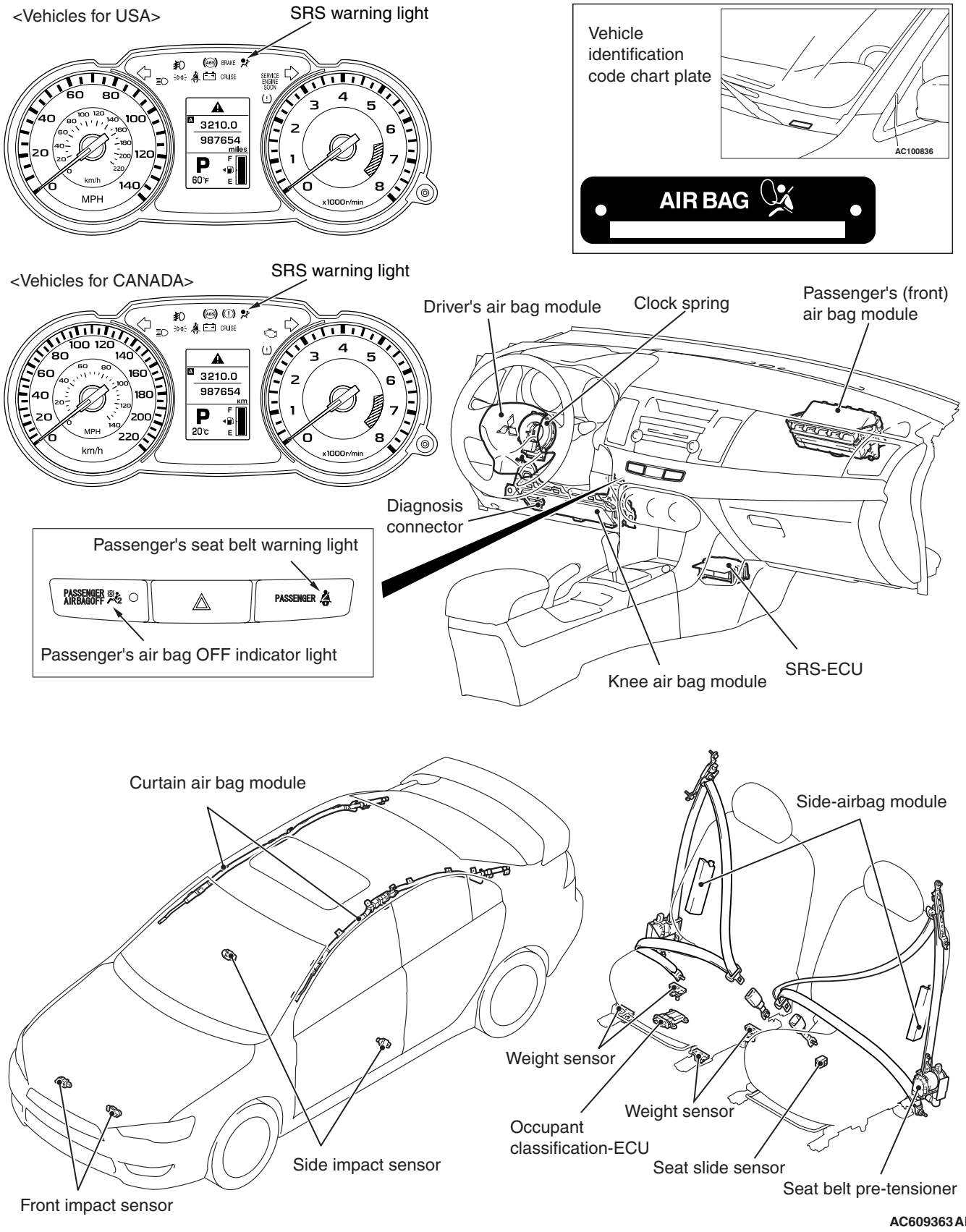
ON-BOARD DIAGNOSTIC/SRS WARNING LIGHT FUNCTION

The diagnosis unit monitors the SRS system and stores data concerning any detected faults in the system. When the ignition switch is in "ON" or "START" position, the SRS warning light should illuminate for about seven seconds and then turn "OFF." That indicates that the SRS system is in operational order. If the SRS warning light does any of the following, immediate inspection by an authorized dealer is needed:

1. The SRS warning light does not illuminate as described above.
2. The SRS warning light stays on for more than seven seconds.
3. The SRS warning light illuminates while driving.

If a vehicle's SRS warning light is in any of these three conditions, the SRS system must be inspected, diagnosed and serviced in accordance with this manual.

CONSTRUCTION DIAGRAM



NOTE: This construction diagram shows the general view of the SRS components. For details, refer to "Schematic(P.52B-9), "Configuration Diagrams(P.52B-11), " and "Circuit Diagram(P.52B-13)".

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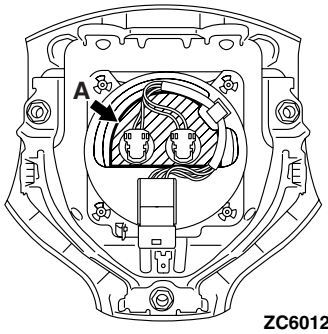
WARNING/CAUTION LABELS

A number of caution labels related to the SRS are found in the vehicle, as shown in the following illustrations. Follow label instructions when servicing SRS. The label I is not to be removed except by owner. If the other labels are dirty or damaged, replace them.

Driver's air bag module



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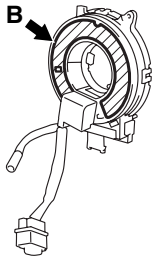
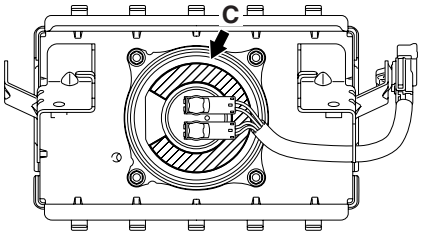
Clock spring

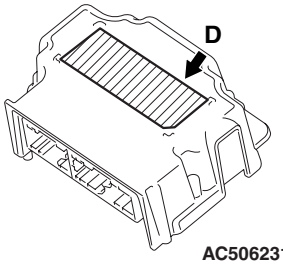


Passenger's (front) air bag module



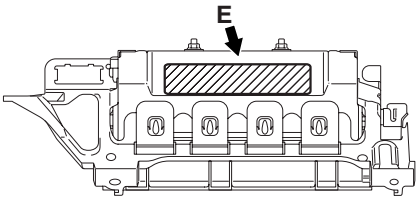
AC611162

SRS-ECU



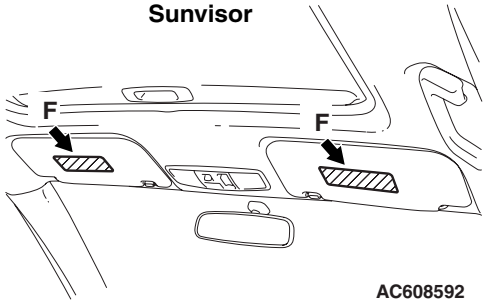
AC506231

Knee air bag module



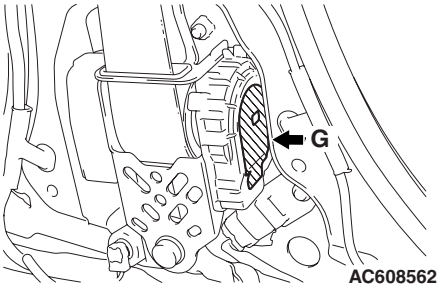
AC608596

Sunvisor



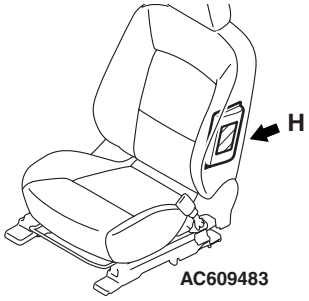
AC608592

Seat belt with pre-tensioner (right and left)



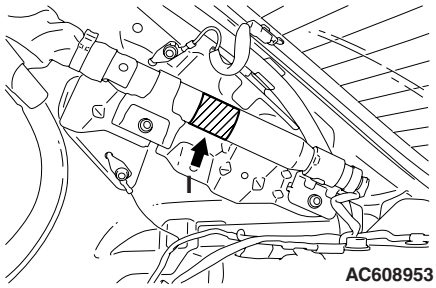
AC608562

Side-airbag module (right and left)



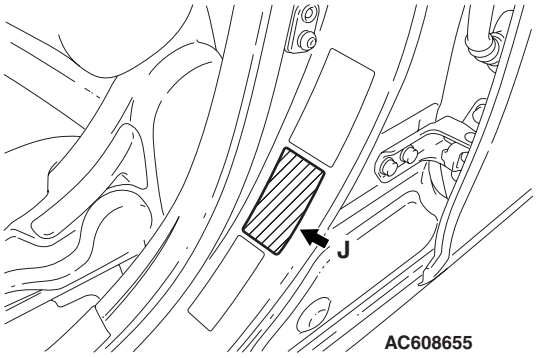
AC609483

Curtain air bag module (right and left)



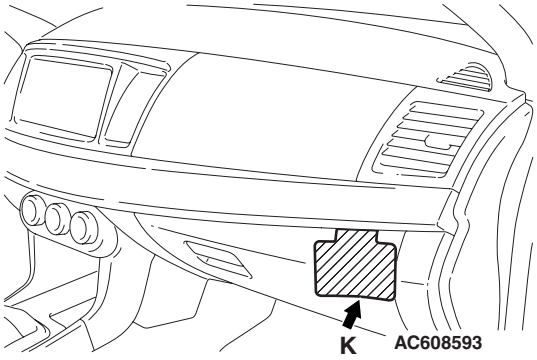
AC608953

Center pillar (right and left)



AC608655

Glove box



AC608593

AC609443 AB

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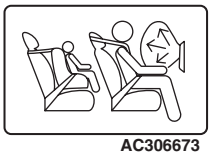
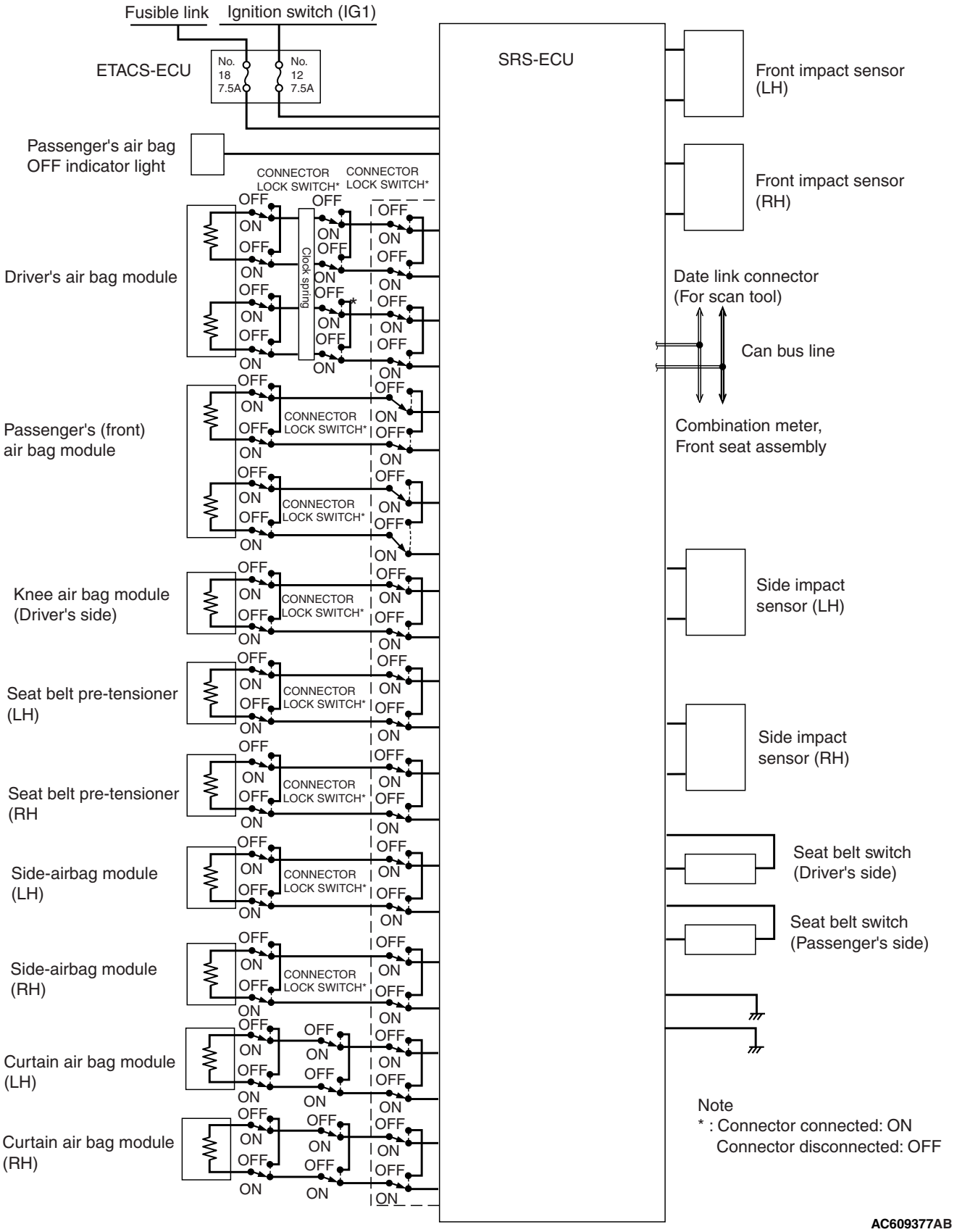
Label contents	
A, C	DANGER FLAMMABLE EXPLOSIVE DO NOT: DISASSEMBLE; HEAT; INCINERATE; APPLY ELECTRICITY; OR STORE AT HIGH TEMPERATURE (93° C or HIGHER). REFER TO WORKSHOP MANUAL FOR DETAILS.
B	CAUTION: SRS CLOCK SPRING PLEASE DO NOT TURN EXCEPT WHEN REQUIRED. THIS IS NOT A REPAIRABLE PART. IF DEFECTIVE, PLEASE REPLACE ENTIRE UNIT ACCORDING TO THE SERVICE MANUAL INSTRUCTIONS. ALIGNMENT OF MODULES IS NECESSARILY WHEN THEY ARE ADJUSTED AND/OR INSTALLED FOR THE ALIGNMENT PROCEDURES, FOLLOW THE SERVICE MANUAL INSTRUCTIONS.
D	CAUTION: DO NOT DISASSEMBLE OR DROP. IF DEFECTIVE, REFER TO SERVICE MANUAL.
E	DANGER FLAMMABLE EXPLOSIVE SRS AIR BAG MODULE • Do not disassemble or shock. • Do not heat or incinerate. • Do not contact with electricity or tester probes. • Do not test or diagnose. • Do not store in more than 200° F (93° C). • Store the air bag cover is top. • For information on handing, replacement, and disposal methods, refer to the service manual.
F <EXCEPT CANADA>  AC306673	WARNING EVEN WITH ADVANCED AIR BAGS • Children can be killed or seriously injured by the air bag • The back seat is the safest place for children • Never put a rear-facing child seat in the front • Always use seat belts and child restraints • See owner's manual for more information about air bags
F <CANADA> V0037AA	WARNING DEATH or SERIOUS INJURY can occur • Children 12 and under can be killed by the air bag. • The BACK SEAT is the SAFEST place for children. • NEVER put a rear-facing child seat in the front. • Sit as far back as possible from the air bag. • ALWAYS use SEAT BELTS and CHILD RESTRAINTS.
G	SEAT BELT PRETENSIONER CAUTION THIS ASSEMBLY CONTAINS AN EXPLOSIVE INITIATOR. DANGER FLAMMABLE MATERIAL TO PREVENT PERSONAL INJURY • DO NOT REMOVE. INSTALL IT INTO ANOTHER VEHICLE. • SERVICE OR DISPOSE OF IT AS DIRECTED IN THE REPAIR MANUAL. • DO NOT DISMANTLE INCINERATE OR BRING INTO CONTACT WITH ELECTRICITY.

Label contents	
H	WARNING SRS AIR BAG MODULE FLAMMABLE/EXPLOSIVE TO AVOID SERIOUS INJURY: • DO NOT REPAIR, DISASSEMBLE OR TAMPER. • AVOID CONTACT WITH FLAME OR ELECTRICITY. • DO NO DIAGNOSIS/USE NO TEST EQPT OR PROBES. • STORE BELOW 200° F (93° C). • BEFORE DOING ANY WORK INVOLVING MODULE, READ SERVICE MANUAL FOR IMPORTANT FURTHER DATA.
I	DANGER CONTAINS HIGH-PRESSURE GAS AND FLAMMABLE MATERIAL To avoid injury, NEVER; [Repair, Disassembly, Incinerate, Bring into contact with electricity, Install onto another vehicle or Store where the temperature is above 93° C (200° F)] -See Repair Manual for details.-
J	SRS SIDE AIRBAG WARNING TO AVOID SERIOUS INJURY OR DEATH: • Do not lean against the door. • Do not use seat covers. See owner's manual for more information
K <EXCEPT CANADA>	This Vehicle is Equipped with Advanced Air Bags Even with Advanced Air Bags Children can be killed or seriously injured by the air bag. The back seat is the safest place for children. Never put a rear-facing child seat in the front. Always use seat belts and child restraints. See owner's manual for more information about air bags. Not to be removed except by owner.
K <CANADA>	WARNING MISE EN GARDE Children Can Be KILLED or INJURED by Passenger Air Bag The back seat is the safest place for children 12 and under. Make sure all children use seat belts or child seats. Not to be removed except by owner.

SCHEMATIC



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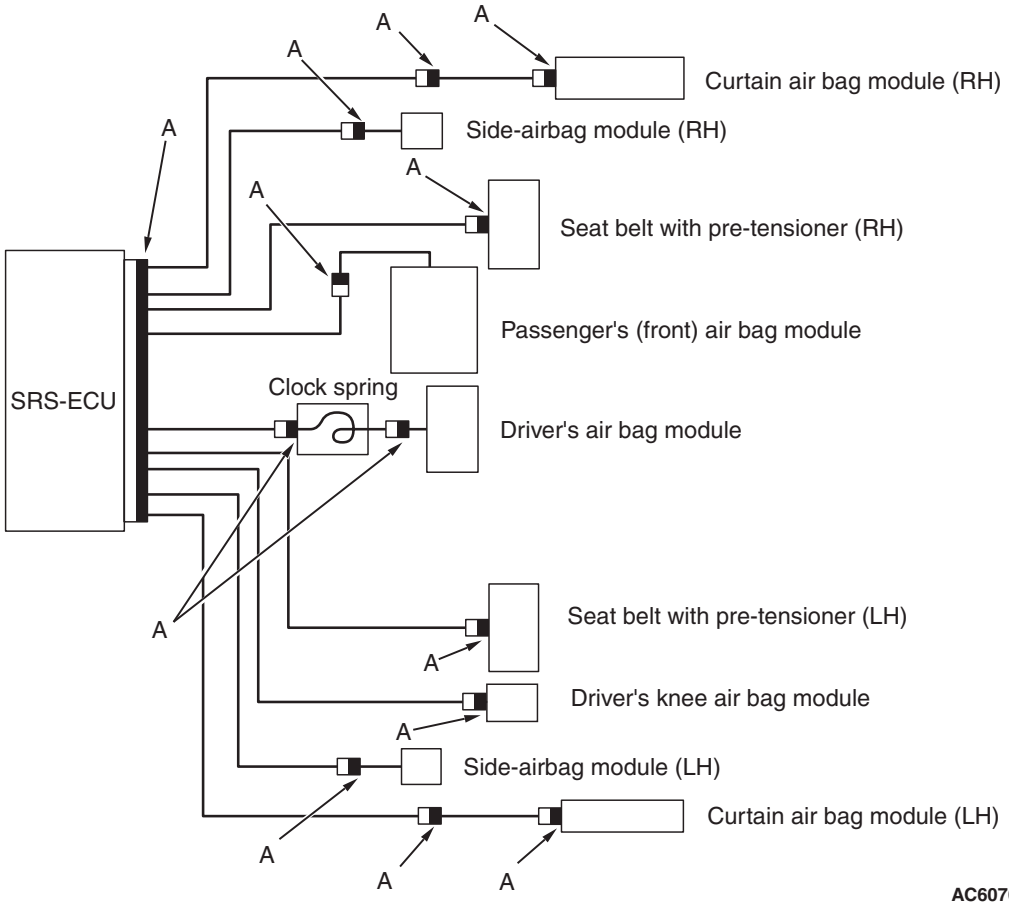
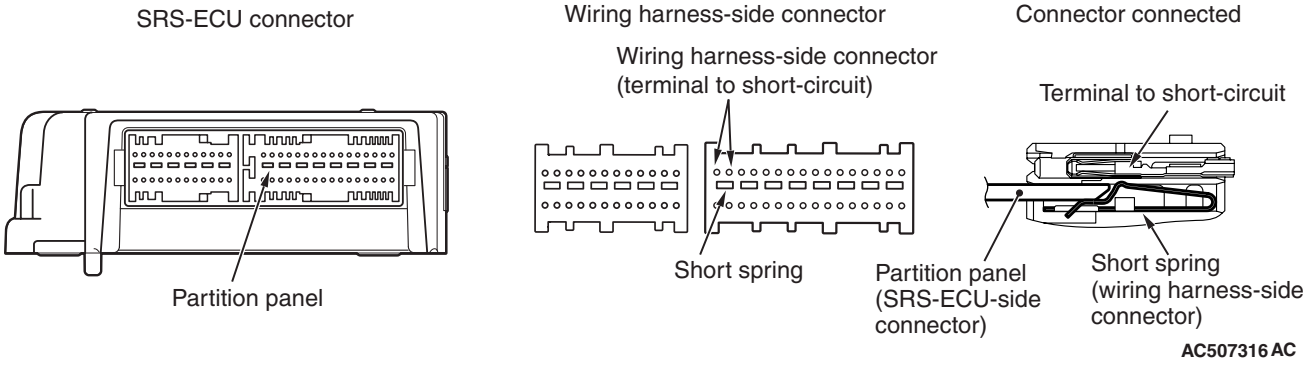
SRS AIR BAG SPECIAL CONNECTOR



To enhance the system reliability, a connector short circuiting mechanism is integrated in the SRS-ECU connector, air bag module connectors, clock spring connector, and pre-tensioner connectors (black connector "A" shown in the figure).

SQUIB CIRCUIT CONNECTOR LOCK SWITCH



This mechanism prevents the improper deployment of air bag module because of the current application to the squib due to the static electricity when connectors between SRS-ECU and air bag modules (squibs) are disconnected. When the connector is disconnected, the short spring short circuits the power supply side terminal and ground side terminal of squibs, and prevents the static electricity from generating the potential difference. This connector mechanism is adopted for the following connectors.

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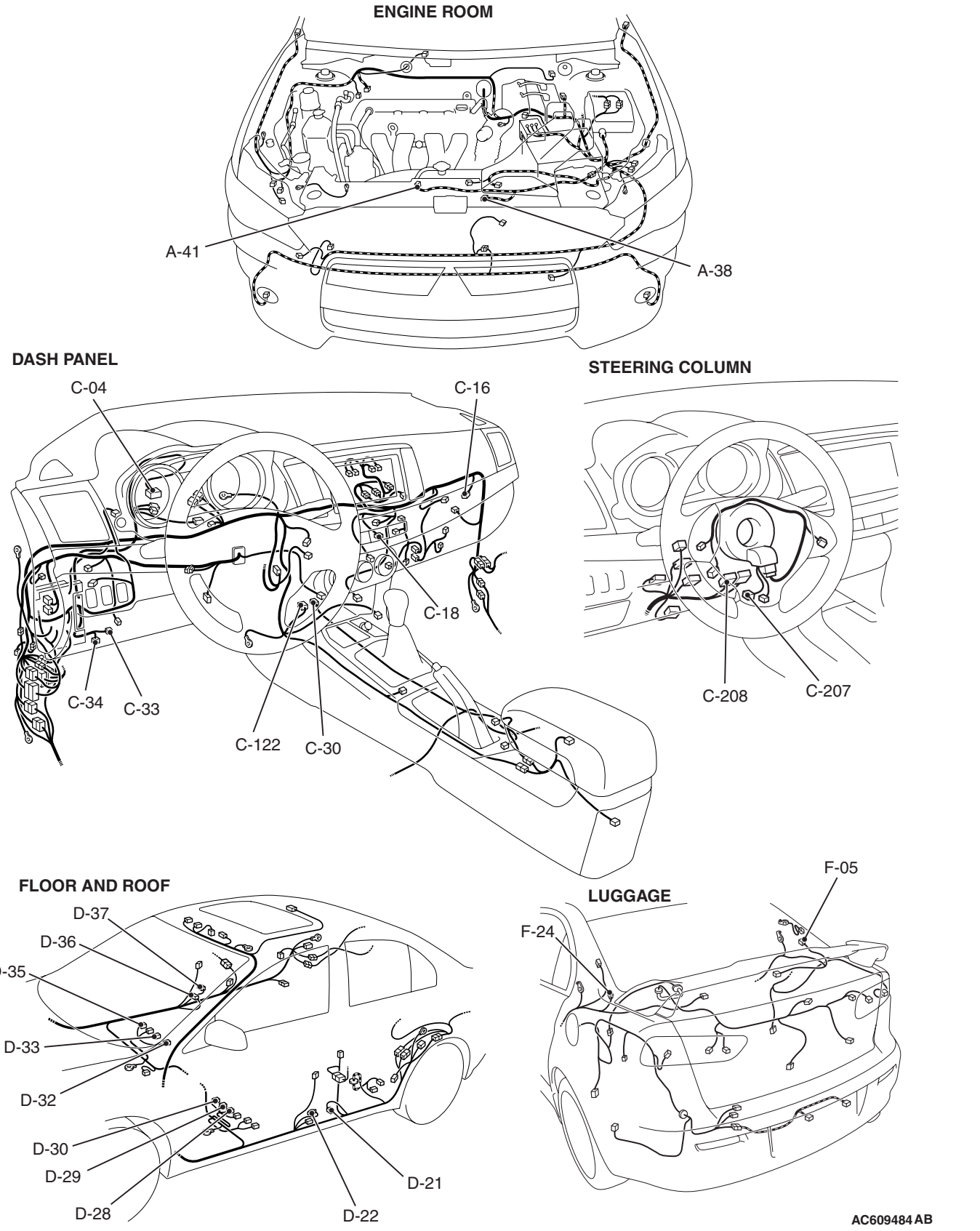
CONFIGURATION DIAGRAMS



A-38 (Y)	Front impact sensor (LH)
A-41 (Y)	Front impact sensor (RH)
C-04	Combination meter
C-16 (Y)	Passenger's (Front) air bag module
C-18 (Y)	Center panel assembly
C-30 (Y)	SRS-ECU

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C-33 (B)	Knee air bag module
C-34 (B)	Date link connector
C-122 (Y)	SRS-ECU
C-207 (Y)	Driver's air bag module
C-208 (Y)	Clock spring
D-21 (B)	Seat belt pre-tensioner (LH)
D-22 (Y)	Side impact sensor (LH)
D-28 (GR)	Seat slide sensor
D-29 (B)	Seat belt switch (Driver's side)
D-30 (Y)	Side-airbag module (LH)
D-32 (Y)	Side-airbag module (RH)
D-33 (B)	Seat belt switch (Passeger's side)
D-35	Front seat assembly (LH) (weight sensor, occupant classification-ECU)
D-36 (B)	Seat belt pre-tensioner (RH)
D-37 (Y)	Side impact sensor (RH)
F-05 (B)	Curtain air bag module (RH)
F-24 (B)	Curtain air bag module (LH)

CIRCUIT DIAGRAM

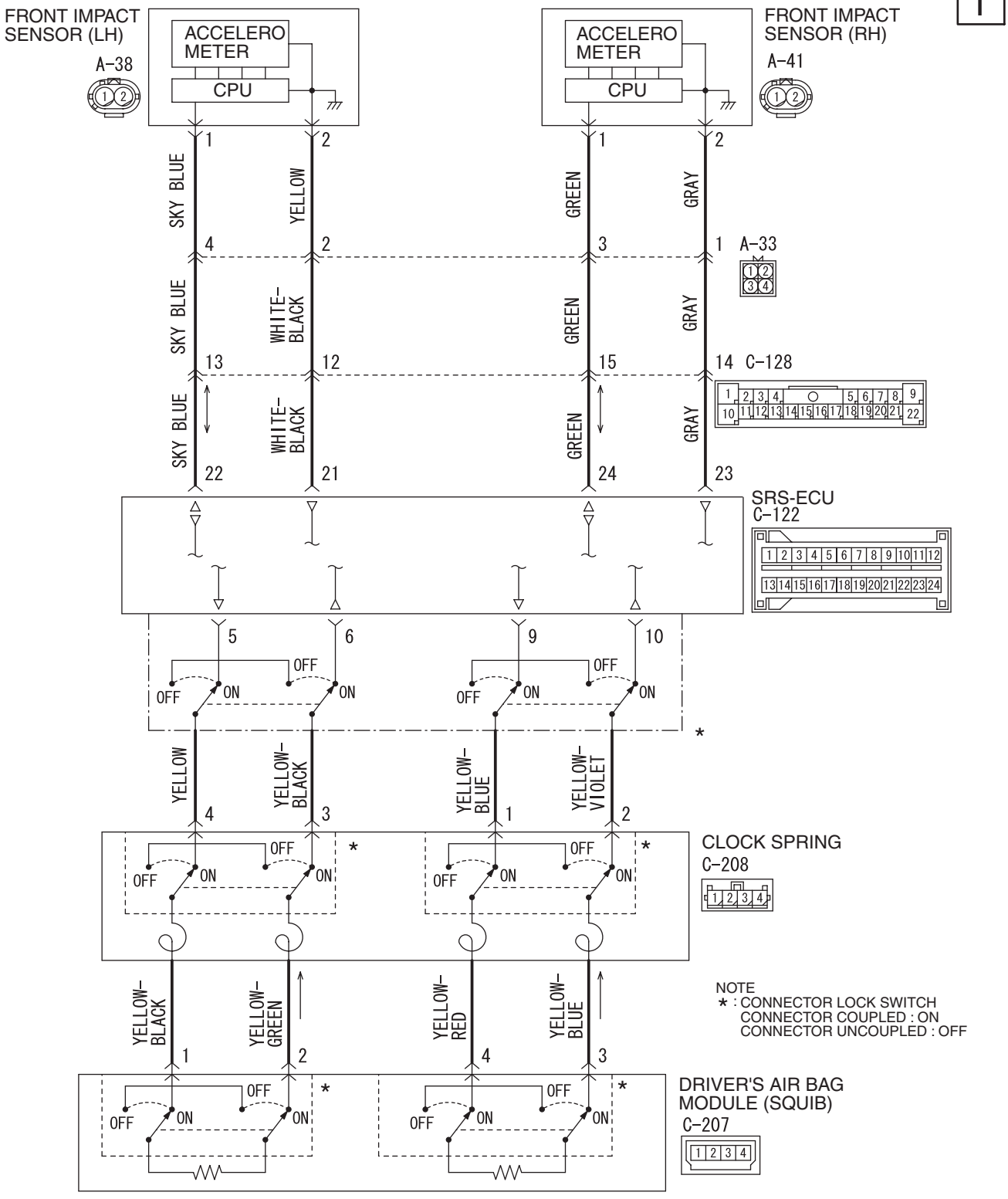
⚠ ***WARNING***

- ***Do not repair, splice, or modify the SRS wiring (except for specific repairs to the instrument panel wiring harness and the floor wiring harness shown on P.52B-24): replace the wiring if necessary, after reading and following all precautions and procedures in this manual.***
- ***Do not use an analog ohmmeter to check the SRS wiring or components; use only the special tools (refer to P.52B-349) and a digital multi-meter (refer to P.52B-28).***

⚠ **CAUTION**

Improper services cause the system to be inoperative. Do not disassemble or tamper with the SRS components to prevent the serious injury.

1



NOTE
* : CONNECTOR LOCK SWITCH
CONNECTOR COUPLED : ON
CONNECTOR UNCOUPLED : OFF

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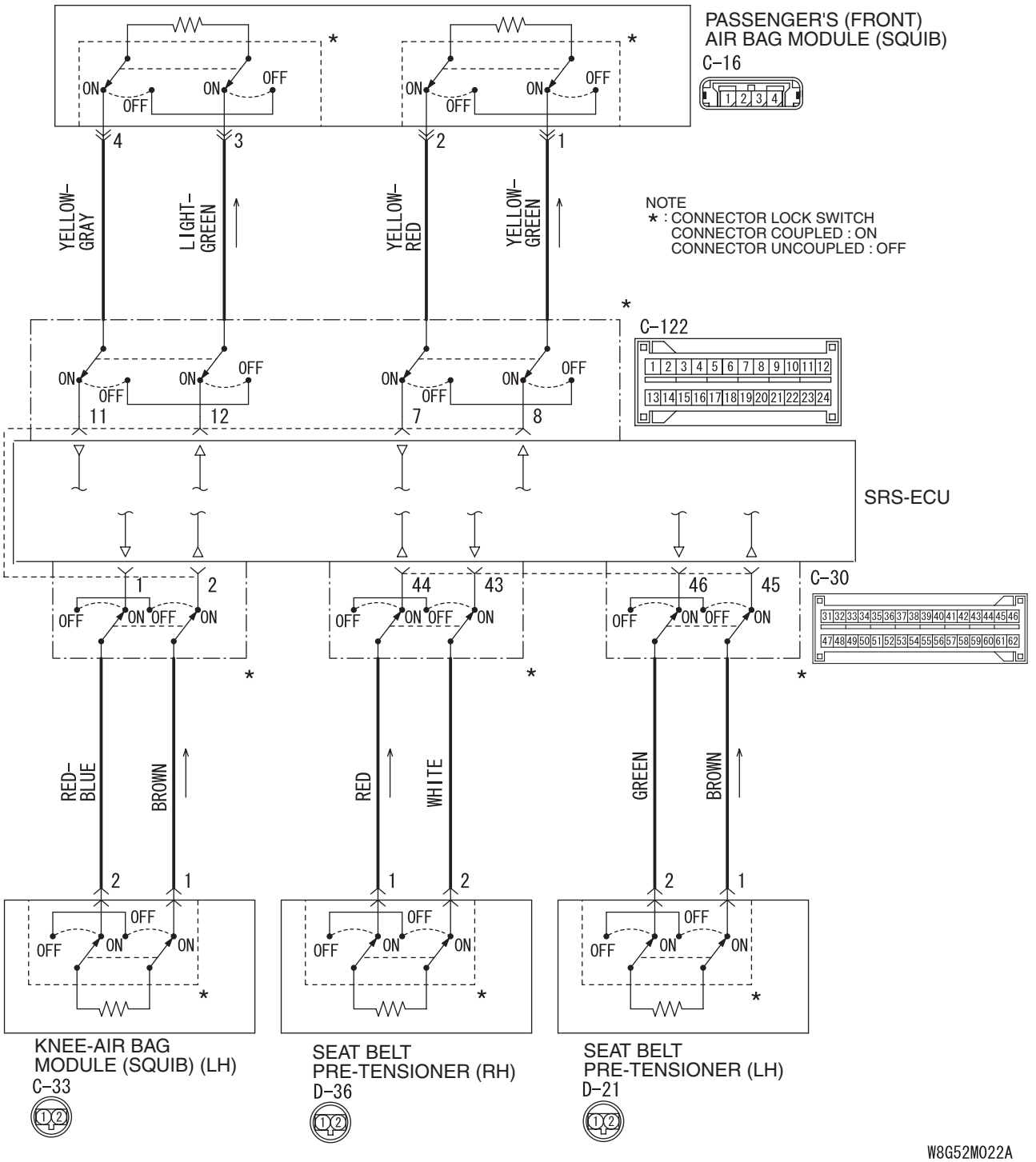
2



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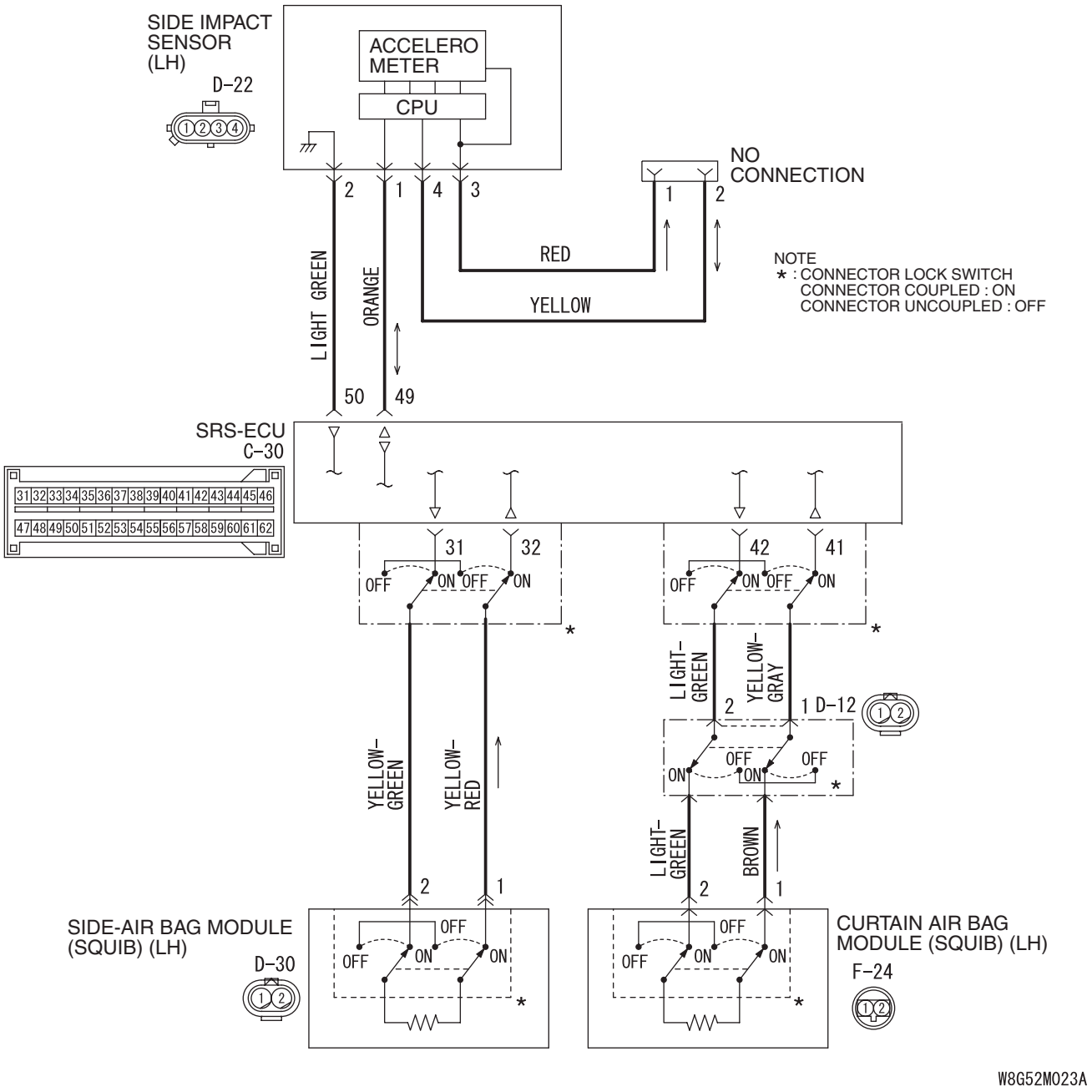

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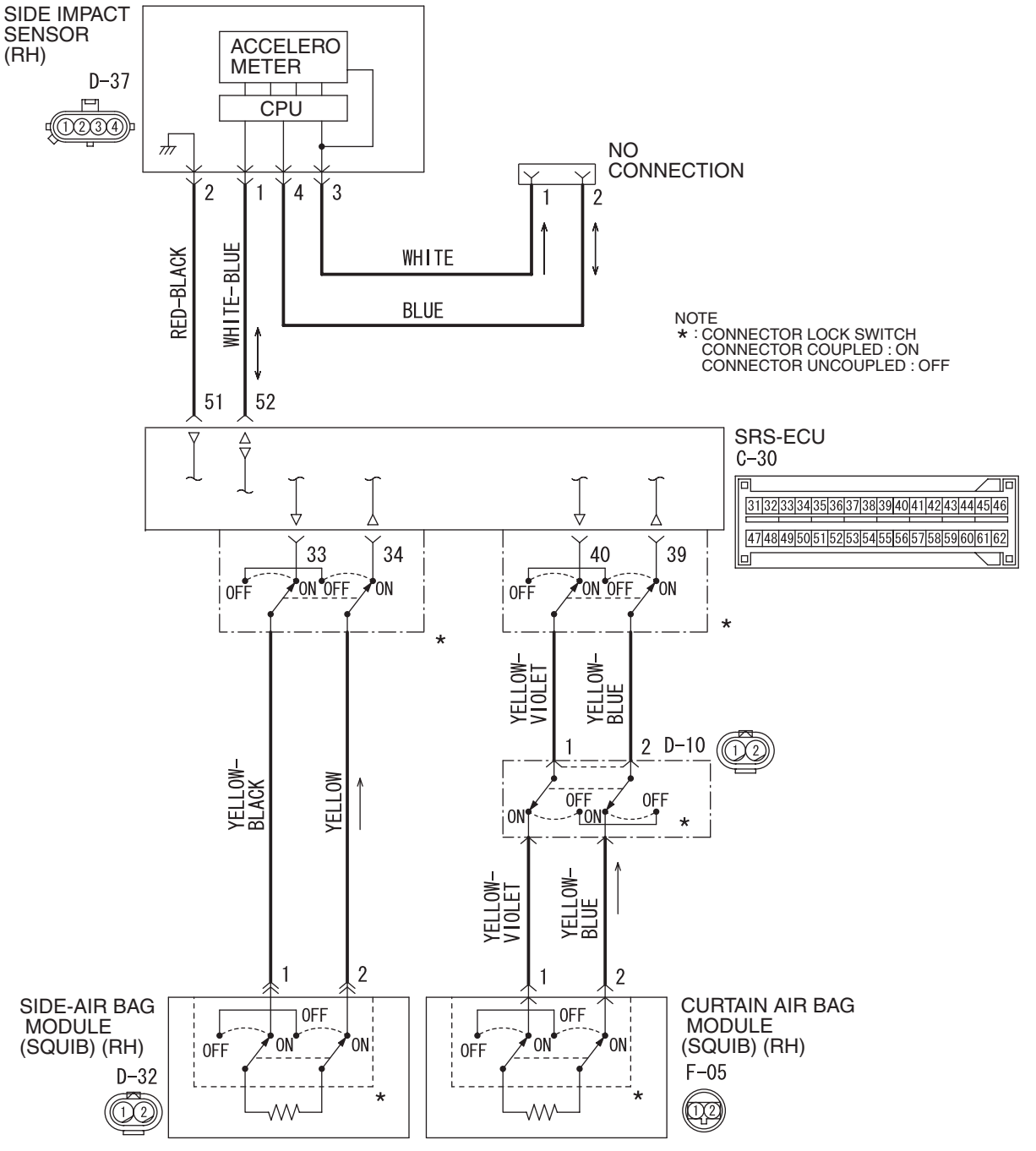

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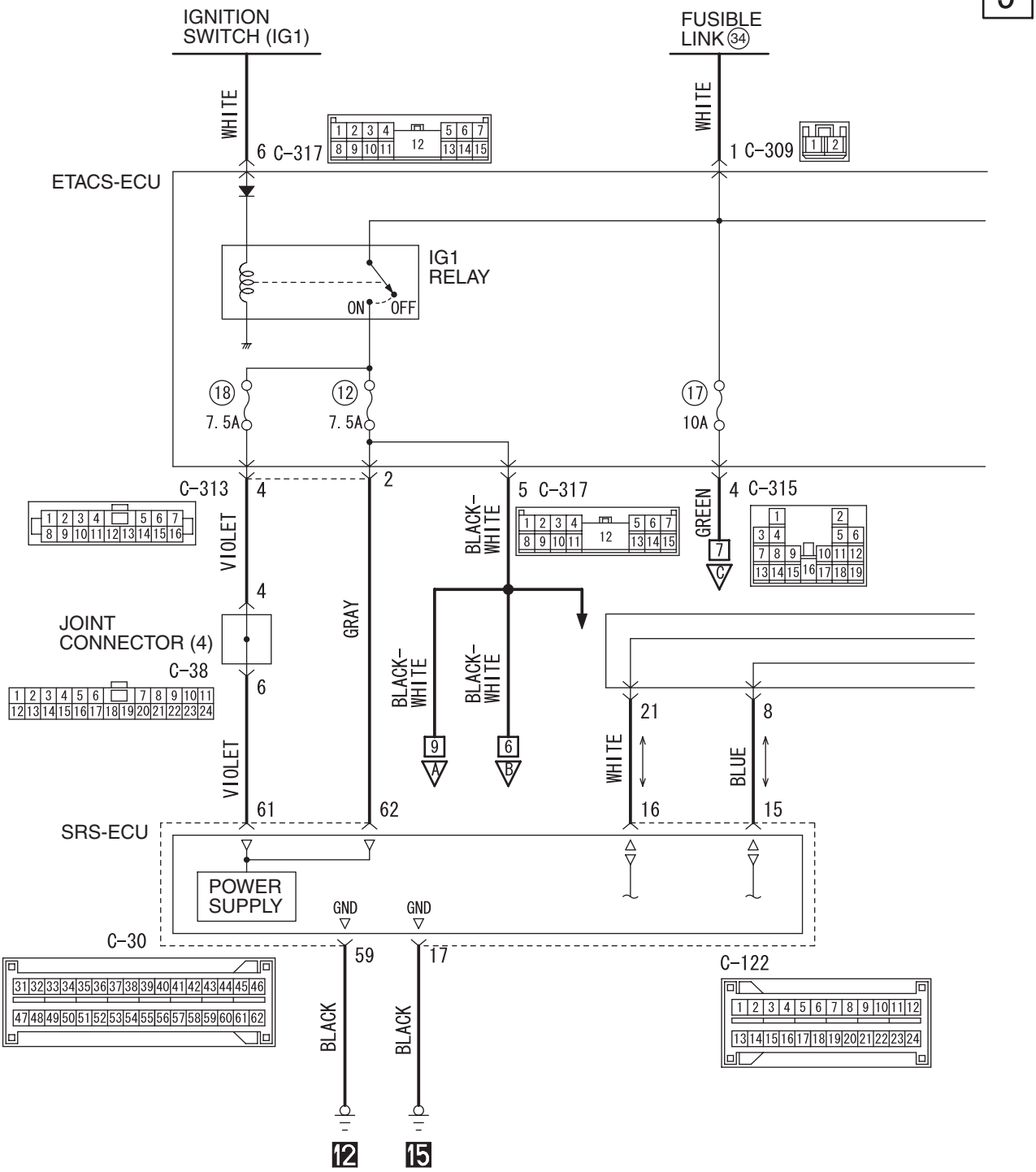

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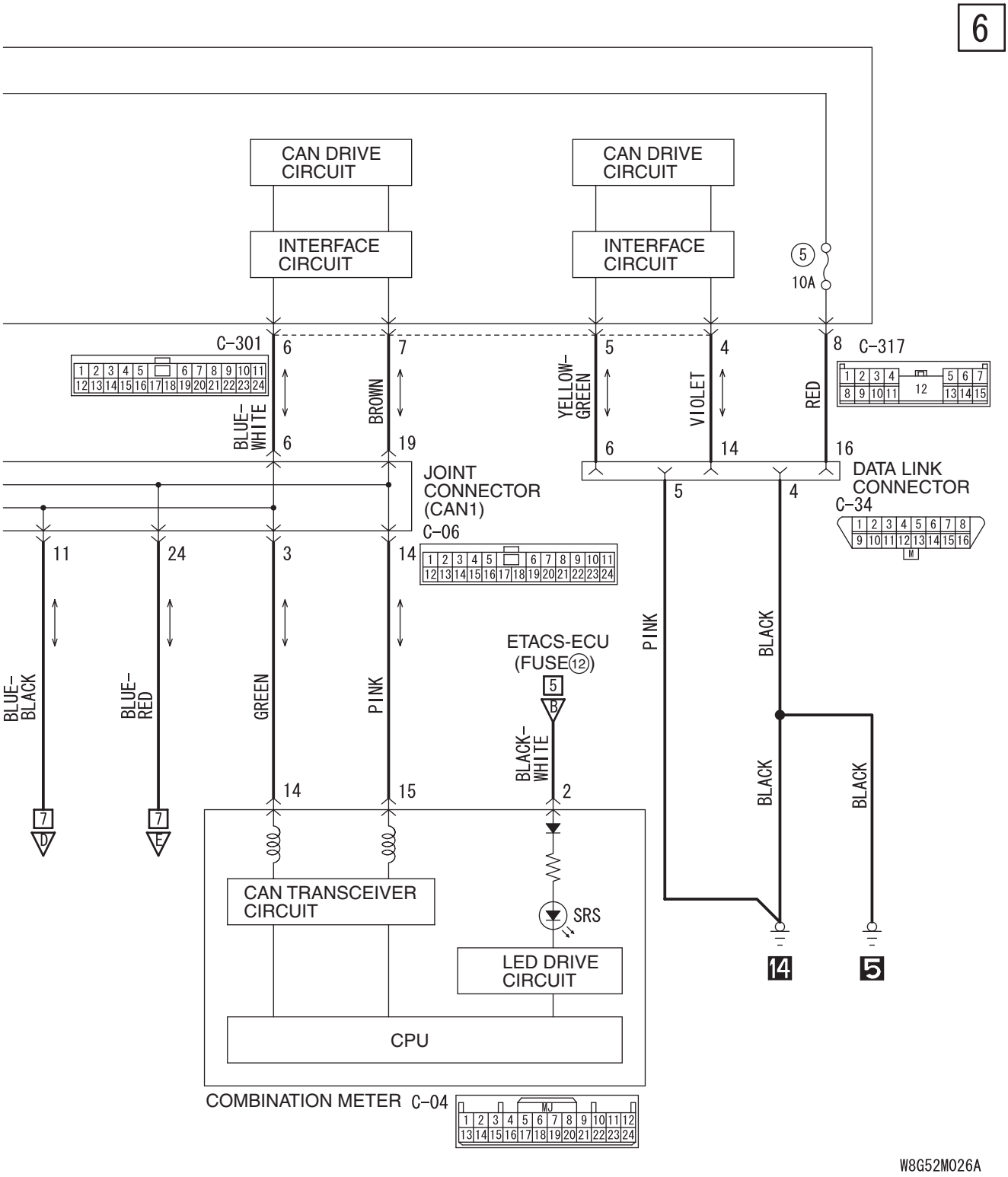

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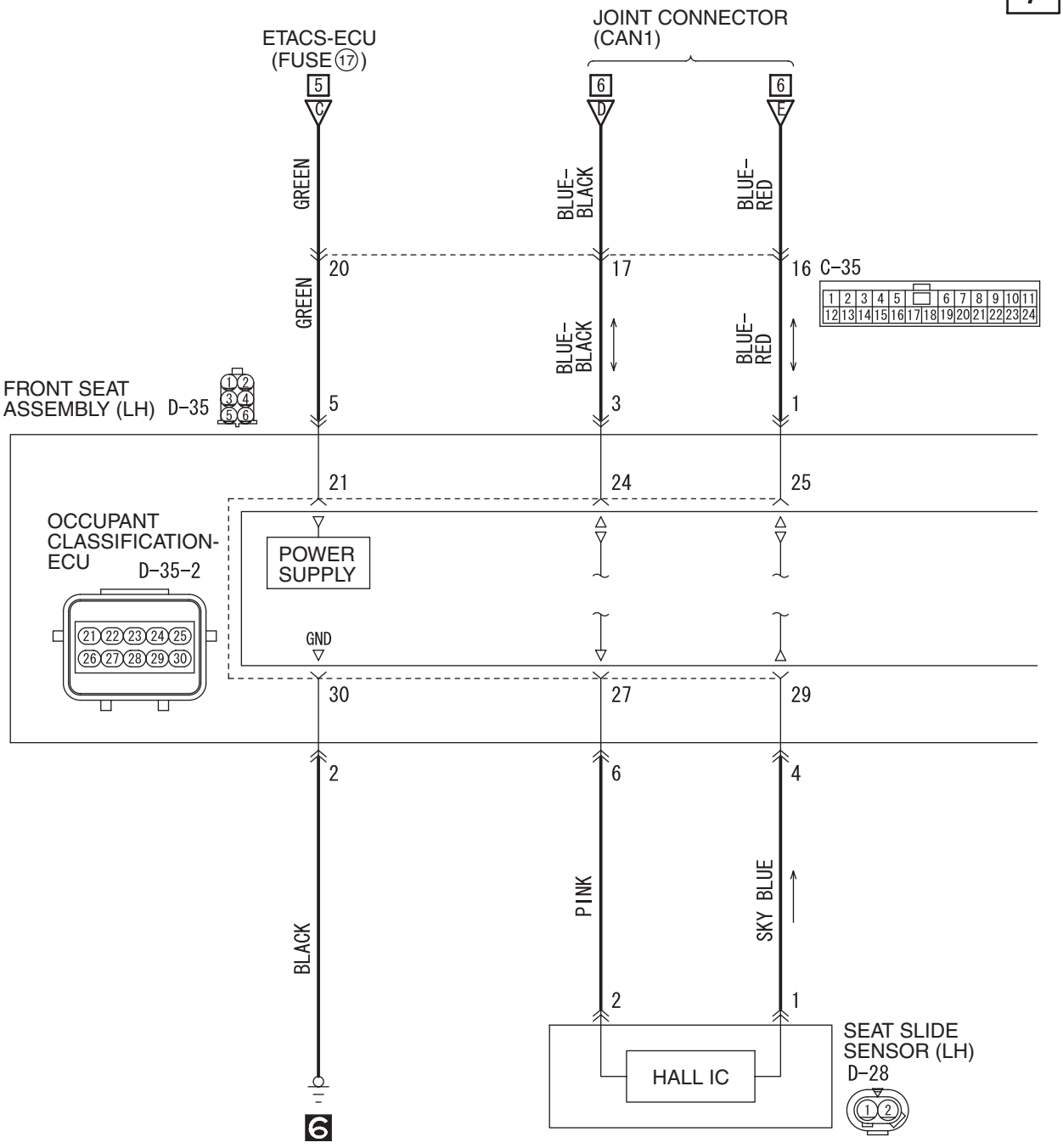

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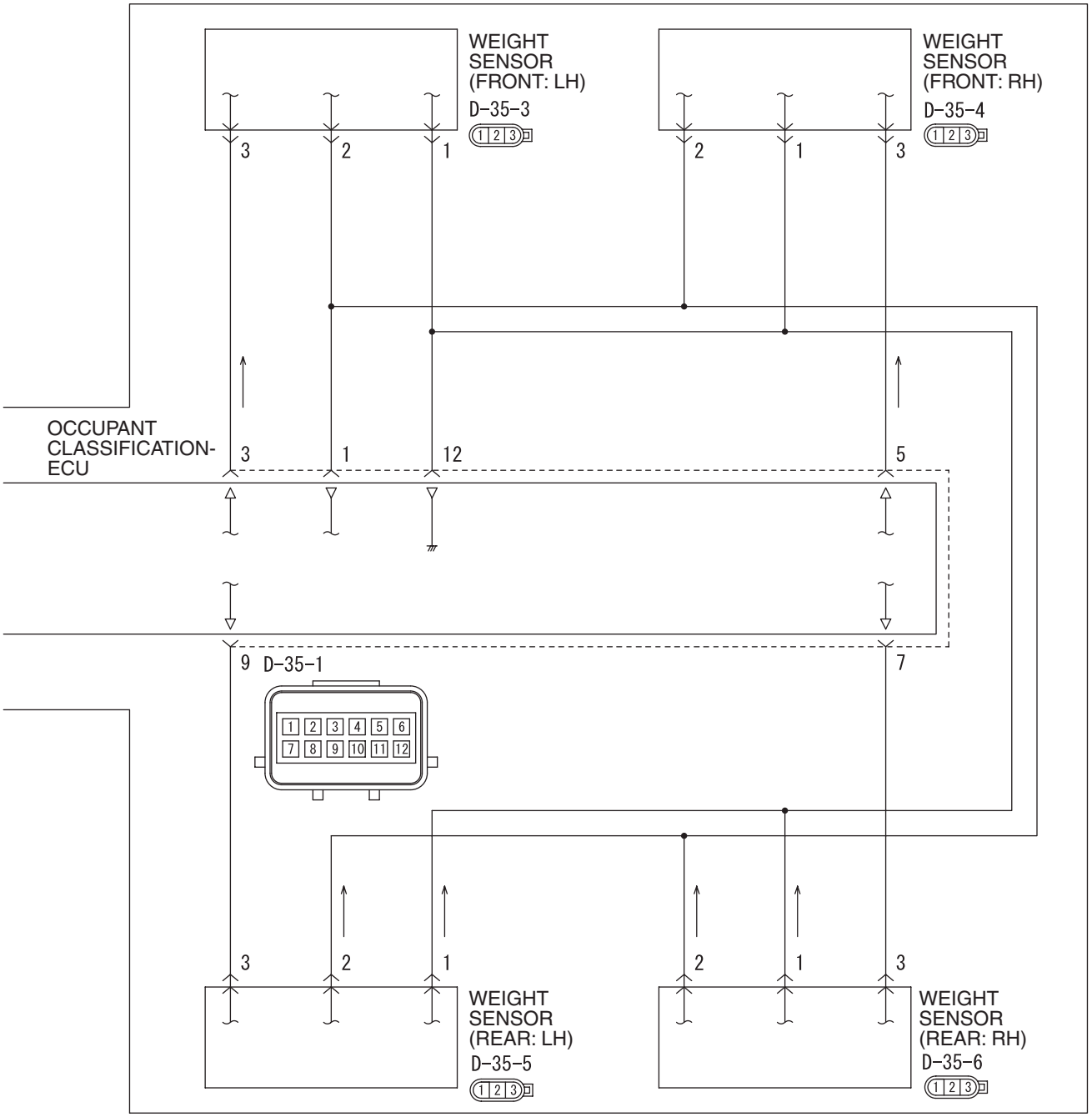

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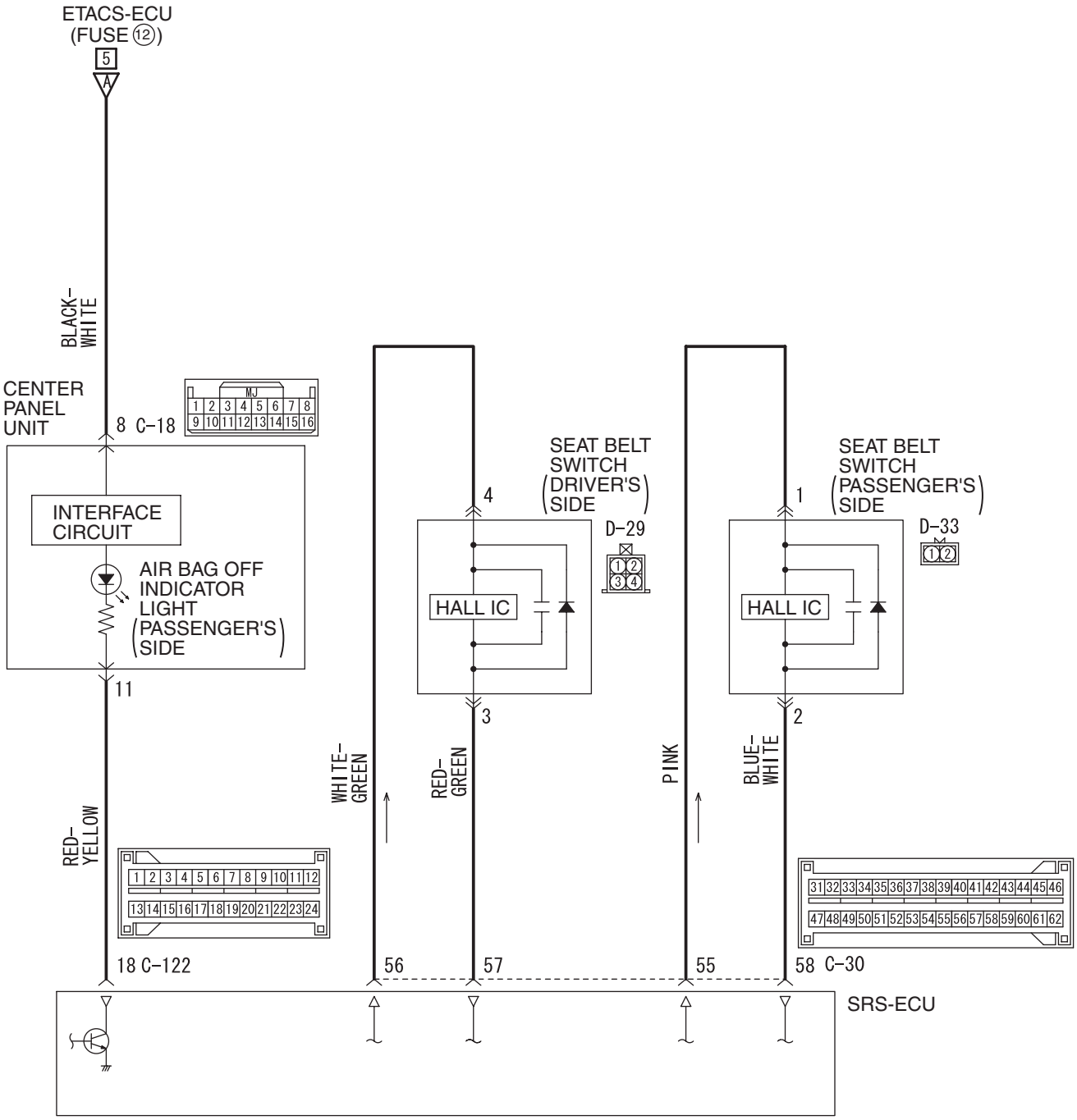

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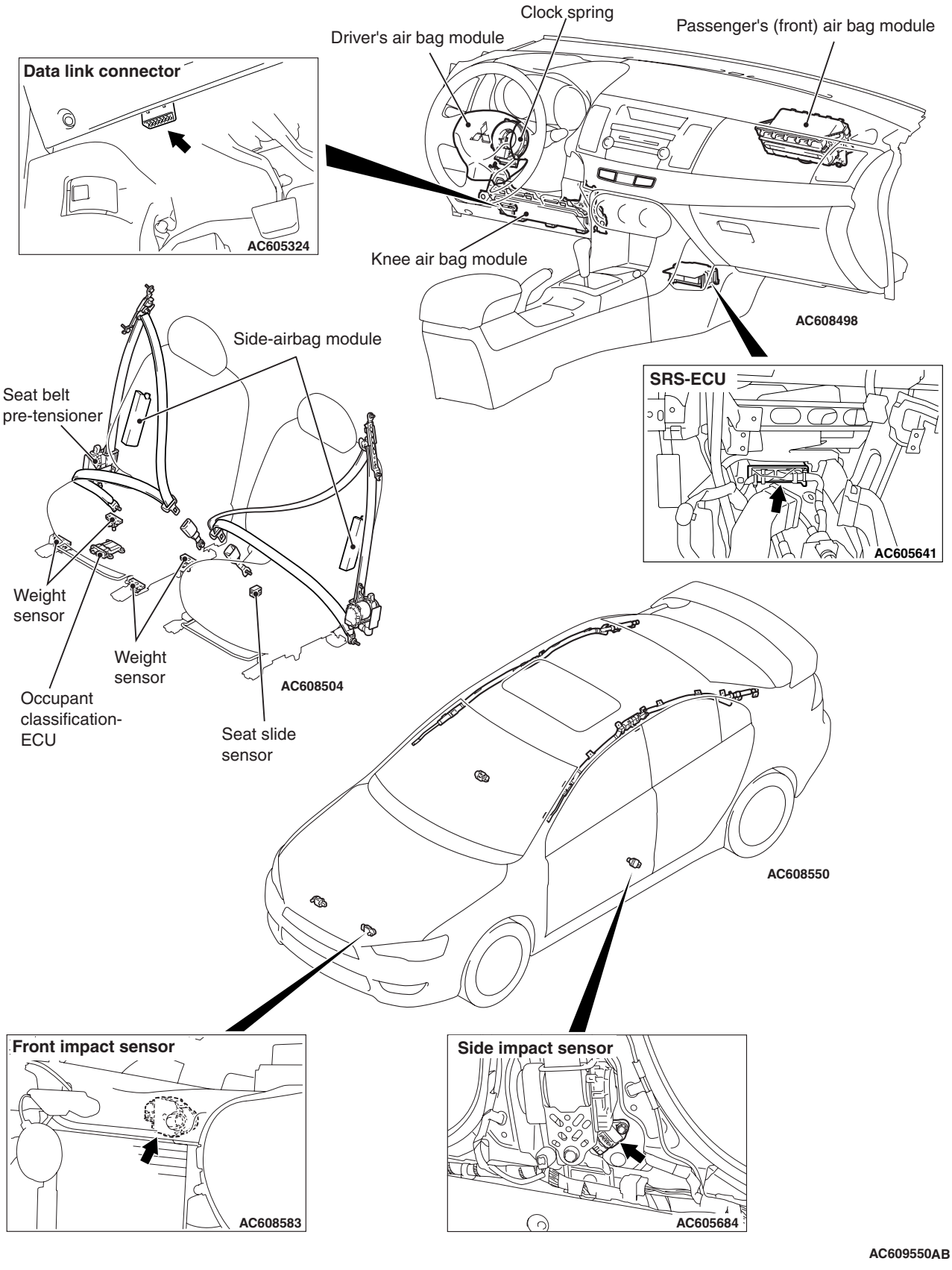
COMPONENT LOCATION



NOTE: The illustration above shows the front impact sensor (LH) and the side impact sensor (LH). The position of the front impact sensor (RH) and the side impact sensor (RH) is symmetrical to this.

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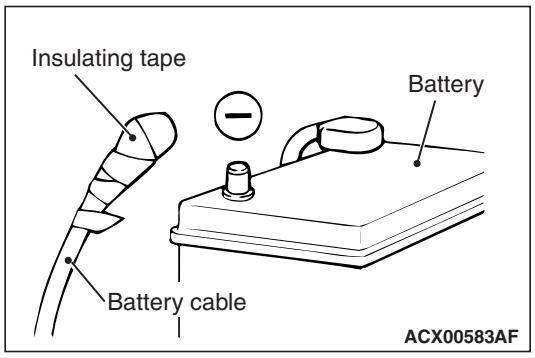
SERVICE PRECAUTIONS

M1524000301209

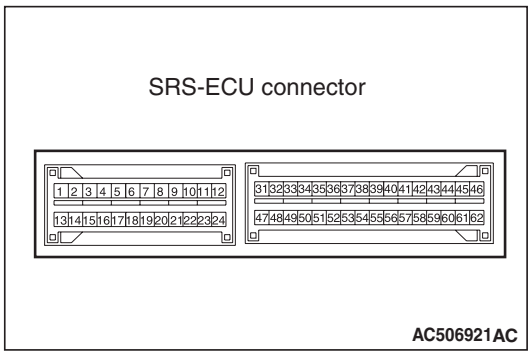


⚠ DANGER

- ***In order to avoid injury to yourself or others from accidental deployment of the air bag during servicing, read and carefully follow all the precautions and procedures described in this manual.***
- ***After disconnecting the battery cable, wait 60 seconds or more before proceeding with the following work. The SRS system is designed to retain enough voltage to deploy the air bag for a short time even after the battery has been disconnected, so serious injury may result from unintended air bag deployment if work is done on the SRS system immediately after the battery cables are disconnected.***

⚠ WARNING

- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Do not use any electrical test equipment on or near the SRS components, except those specified on P.52B-350.***
- ***Never Attempt to Repair the Following Components: SRS-ECU, Clock Spring, Air Bag Modules, Front impact sensor, Side Impact Sensor, Seat Belt with Pre-tensioner. If any of these components are diagnosed as faulty, they should only be replaced, in accordance with the INDIVIDUAL COMPONENT SERVICE procedures in this manual, starting on P.52B-357.***



- ***Do not attempt to repair the wiring harness connectors of the SRS. If any of the connectors are diagnosed as faulty, replace the wiring harness. If the wires are diagnosed as faulty, replace or repair the wiring harness according to the following table.***

SRS-ECU terminal No.	Destination of harness	Corrective action
1, 2	Instrument panel wiring harness →Knee air bag module	Correct or replace the instrument panel wiring harness.
5, 6	Instrument panel wiring harness → Clock spring →Driver's air bag module 1st squib side	Correct or replace the instrument panel wiring harness. Replace the clock spring.
7, 8	Instrument panel wiring harness → Passenger's (front) air bag module 1st squib side	Correct or replace the instrument panel wiring harness.
9, 10	Instrument panel wiring harness → Clock spring →Driver's air bag module 2nd squib side	Correct or replace the instrument panel wiring harness. Replace the clock spring.
11, 12	Instrument panel wiring harness → Passenger’s (front) air bag module 2nd squib side	Correct or replace the instrument panel wiring harness.
15, 16	CAN line	Correct or replace CAN line.
17, 59	Instrument panel wiring harness → Ground	Correct or replace the instrument panel wiring harness.
18	Instrument panel wiring harness →Air bag OFF indicator light	Correct or replace the instrument panel wiring harness.
21, 22	Front wiring harness →Instrument panel wiring harness →Front wiring harness → Front impact sensor (LH)	Correct or replace each wiring harness.
23, 24	Front wiring harness →Instrument panel wiring harness →Front impact sensor (RH)	Correct or replace each wiring harness.
31, 32	Floor wiring harness →Side-airbag module (LH)	Correct or replace the floor wiring harness.
33, 34	Floor wiring harness →Side-airbag module (RH)	Correct or replace the floor wiring harness.
39, 40	Floor wiring harness →Rear floor wiring harness (RH) →Curtain air bag module (RH)	Correct or replace each wiring harness.
41, 42	Floor wiring harness →Rear floor wiring harness (LH) →Curtain air bag module (LH)	Correct or replace each wiring harness.
43, 44	Floor wiring harness →Seat belt pre-tensioner (RH)	Correct or replace the floor wiring harness.
45, 46	Floor wiring harness →Seat belt pre-tensioner (LH)	Correct or replace the floor wiring harness.
49, 50	Floor wiring harness →Side impact sensor (LH)	Correct or replace the floor wiring harness.
51, 52	Floor wiring harness →Side impact sensor (RH)	Correct or replace the floor wiring harness.
55, 58	Instrument panel wiring harness → Passenger’s seat belt switch	Correct or replace the Instrument panel wiring harness.

SRS-ECU terminal No.	Destination of harness	Corrective action
56, 57	Instrument panel wiring harness → driver's seat belt switch	Correct or replace the Instrument panel wiring harness.
61	Instrument panel wiring harness → ETACS-ECU (fuse No.18)	Correct or replace instrument panel wiring harness.
62	Instrument panel wiring harness → ETACS-ECU (fuse No.12)	Correct or replace instrument panel wiring harness.

⚠ ***WARNING***

- ***The SRS components and seat belt with pre-tensioner should not be subjected to heat, so remove the SRS-ECU, driver's and front passenger's air bag modules, clock spring, knee air bag module, side-airbag modules, Curtain air bag modules, front and side impact sensor and seat belt pre-tensioner before drying or baking the vehicle after painting.***
  - ***SRS-ECU, air bag module, clock spring, impact sensor: 93° C (200° F) or more***
  - ***Seat belt with pre-tensioner 90°C (194° F) or more***
- ***After servicing the SRS system, check the warning light operation to make sure that the system functions properly. (Refer to P.52B-3).***
- ***Make certain that the ignition switch is in the "LOCK"(OFF) position when the scan tool is connected or disconnected.***

SRS AIR BAG DIAGNOSIS

INTRODUCTION TO DIAGNOSIS

M1524005000523

The SRS system is controlled by the SRS-ECU. The SRS-ECU judges how severe a collision is by detecting signals from the left and right front impact sensors and side impact sensors, front air bag analog G-sensor and front air bag safing G-sensor and side-airbag safing G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the safing G-sensor is on, the SRS air bag will inflate. (The passenger's air bag may not inflate according to the occupant detection data from the occupant classification-ECU.) The SRS warning light in the combination meter alerts a malfunction of the SRS system. If the following symptoms occur even when the vehicle has not been in a collision, there may be a malfunction in the SRS system.

- The SRS warning light does not go off within approximately seven seconds after the ignition switch has been turned to the "ON" position.
- The SRS warning light does not illuminate when the ignition switch is turned to the "ON" position.

Refer to Post-collision Diagnosis when inspecting and servicing a vehicle that has been in a collision (Refer to P.52B-351).

TROUBLESHOOTING STRATEGY

M1524003100892

Use these steps to plan your diagnostic strategy. If you follow them carefully, you will be sure that you have exhausted all of the possible ways to find a SRS fault.

1. Gather information about the problem from the customer.
2. Verify that the condition described by the customer exists.
3. Check the vehicle for any SRS diagnostic trouble codes (SRS DTC).
4. If you cannot verify the condition but there are no SRS DTCs, the malfunction is intermittent. Refer to GROUP 00, How to Use Troubleshooting – Inspection Service Points –How to Cope with Intermittent Malfunctions P.00-13.
5. If there is a SRS DTC, record the code number, then erase the code from vehicle memory using scan tool (M.U.T.-III Sub Assembly) MB991958.
6. Recreate the SRS DTC set conditions to see if the same SRS DTC will be set again.
   - If the same SRS DTC is set again, follow the Inspection Chart for the DTC and find the fault.
   - If you cannot get the same SRS DTC to be set again, the malfunction is intermittent. Refer to GROUP 00, How to Use Troubleshooting – Inspection Service Points –How to Cope with Intermittent Malfunctions P.00-13.

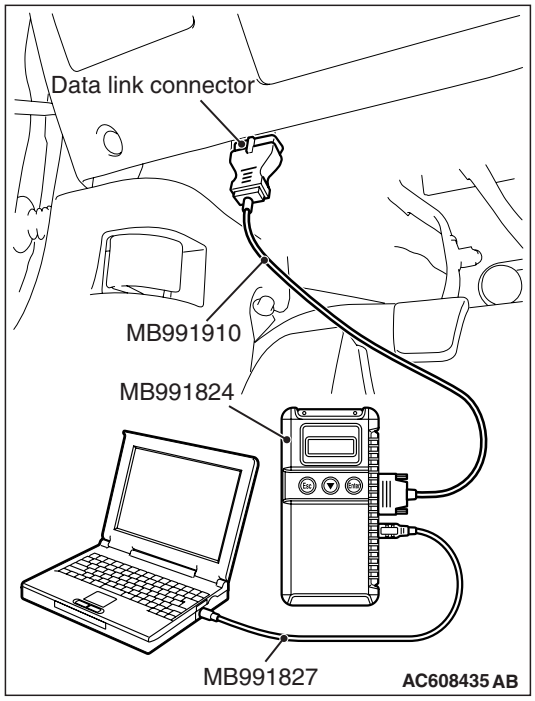
DIAGNOSTIC FUNCTION

M1524013800193

HOW TO CONNECT THE SCAN TOOL (M.U.T.-III)

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824:Vehicle Communication Interface(V.C.I.)
  - MB991827:M.U.T.-III USB Cable
  - MB991910:M.U.T.-III Main Harness A



⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

1. Ensure that the ignition switch is at the "LOCK" (OFF) position.
2. Start up the personal computer.
3. Connect special tool MB991827 to special tool MB991824 and the personal computer.
4. Connect special tool MB991910 to special tool MB991824.
5. Connect special tool MB991910 to the data link connector.
6. Turn the power switch of special tool MB991824 to the "ON" position.

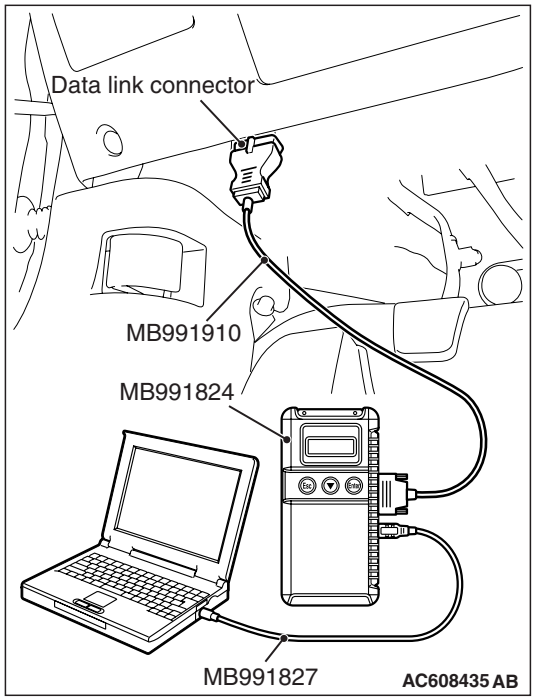
   NOTE: When special tool MB991824 is energized, special tool MB991824 indicator light will be illuminated in a green color.
7. Start the M.U.T.-III system on the personal computer.

NOTE: Disconnecting scan tool MB991958 is the reverse of the connecting sequence, making sure that the ignition switch is at the "LOCK" (OFF) position.

HOW TO READ AND ERASE DIAGNOSTIC TROUBLE CODES

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824:Vehicle Communication Interface(V.C.I.)
  - MB991827:M.U.T.-III USB Cable
  - MB991910:M.U.T.-III Main Harness A



⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

NOTE: If the battery voltage is low, diagnostic trouble codes will not be set. Check the battery if scan tool MB991958 does not display.

1. Connect scan tool MB991958 to the data link connector.
2. Turn the ignition switch to the "ON" position.
3. Select "System select" from the start-up screen.
4. Select "From 2006 MY" of "Model Year." When the "Vehicle Information" is displayed, check the contents.
5. Select "SRS-AIR BAG" from "System List," and press the "OK" button.

   NOTE: When the "Loading Option Setup" list is displayed, check the applicable item.
6. Select "Diagnostic Trouble Code."
7. If a DTC is set, it is shown.
8. Choose "Erase DTCs" to erase the DTC.

SRS WARNING LIGHT CHECK

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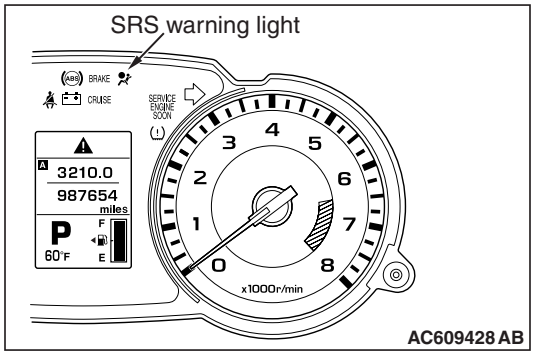

1. Check that the SRS warning light illuminates when the ignition switch is in the "ON" position.
2. Check that it illuminates for approximately seven seconds and then goes out.
3. If not, check for DTC.

PASSENGER'S SEAT BELT WARNING LIGHT CHECK

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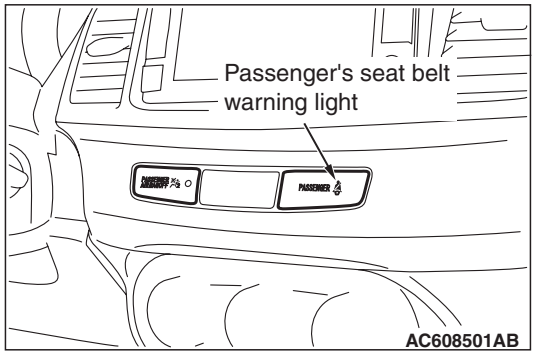

When an adult on the front passenger's seat wears the seat belt with the ignition switch "ON," confirm that the passenger's seat belt warning light goes out.

PASSENGER'S AIR BAG OFF INDICATOR LIGHT CHECK

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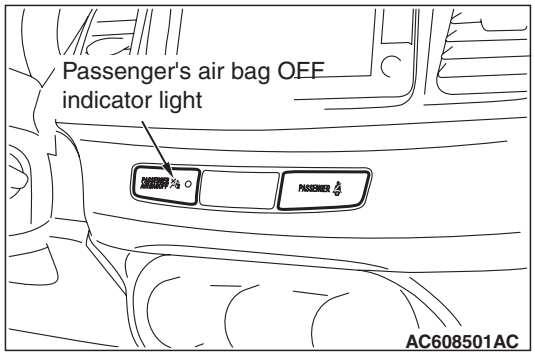

1. Check that the passenger’s air bag OFF indicator light illuminates when the ignition switch is in the "ON" position.
2. Check that it illuminates for approximately seven seconds and then goes out.
3. If not, check for DTC.

DIAGNOSTIC TROUBLE CODE CHART <SRS-ECU>

M1524003301305

⚠ CAUTION

During diagnosis, a DTC code associated with another system may be set when the ignition switch is turned on with connector(s) disconnected. After completing the repair, confirm all systems for DTC code(s). If DTC code(s) are set, erase them all.

Inspect according to the inspection chart that is appropriate for the DTC.

Diagnostic trouble Code No.	Inspection item	Reference page
B1206	Passenger's air bag OFF indicator light (open circuit)	P.52B-34
B1207	Passenger's air bag OFF indicator light (short circuit between circuit terminal)	P.52B-38
B1B00	Driver's air bag module (1st squib) system (shorted to squib circuit ground)	P.52B-43
B1B01	Driver's air bag module (1st squib) system (shorted to squib circuit power supply)	P.52B-49
B1B02	Driver's air bag module (1st squib) system (squib circuit open)	P.52B-55
B1B03	Driver's air bag module (1st squib) system (short circuit between squib circuit terminals)	P.52B-61
B1B04	Driver's air bag module (2nd squib) system (shorted to squib circuit ground)	P.52B-43
B1B05	Driver's air bag module (2nd squib) system (shorted to squib circuit power supply)	P.52B-49
B1B06	Driver's air bag module (2nd squib) system (squib circuit open)	P.52B-55
B1B07	Driver's air bag module (2nd squib) system (short circuit between squib circuit terminals)	P.52B-61
B1B08	Passenger's (front) air bag module (1st squib) system (shorted to squib circuit ground)	P.52B-69
B1B09	Passenger's (front) air bag module (1st squib) system (shorted to squib circuit power supply)	P.52B-74
B1B0A	Passenger's (front) air bag module (1st squib) system (squib circuit open)	P.52B-79
B1B0B	Passenger's (front) air bag module (1st squib) system (short circuit between squib circuit terminals)	P.52B-83
B1B0C	Passenger's (front) air bag module (2nd squib) system (shorted to squib circuit ground)	P.52B-69
B1B0D	Passenger's (front) air bag module (2nd squib) system (shorted to squib circuit power supply)	P.52B-74
B1B0E	Passenger's (front) air bag module (2nd squib) system (squib circuit open)	P.52B-79
B1B0F	Passenger's (front) air bag module (2nd squib) system (short circuit between squib circuit terminals)	P.52B-83
B1B10	Driver’s knee air bag module (squib) system (shorted to squib circuit ground)	P.52B-90

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Diagnostic trouble Code No.	Inspection item	Reference page
B1B11	Driver's knee air bag module (squib) system (shorted to squib circuit power supply)	P.52B-94
B1B12	Driver's knee air bag module (squib) system (squib circuit open)	P.52B-98
B1B13	Driver's knee air bag module (squib) system (short circuit between squib circuit terminals)	P.52B-102
B1B18	Curtain air bag module (LH) (squib) system (shorted to squib circuit ground)	P.52B-108
B1B19	Curtain air bag module (LH) (squib) system (shorted to squib circuit power supply)	P.52B-113
B1B1A	Curtain air bag module (LH) (squib) system (squib circuit open)	P.52B-118
B1B1B	Curtain air bag module (LH) (squib) system (short circuit between squib circuit terminals)	P.52B-123
B1B20	Curtain air bag module (RH) (squib) system (shorted to squib circuit ground)	P.52B-129
B1B21	Curtain air bag module (RH) (squib) system (shorted to squib circuit power supply)	P.52B-134
B1B22	Curtain air bag module (RH) (squib) system (squib circuit open)	P.52B-139
B1B23	Curtain air bag module (RH) (squib) system (short circuit between squib circuit terminals)	P.52B-144
B1B50	seat belt switch (LH) circuit (ground side) shorted	P.52B-150
B1B51	seat belt switch (LH) circuit (power supply side) shorted	P.52B-150
B1B52	seat belt switch (LH) circuit open	P.52B-150
B1B54	seat belt switch (RH) circuit (ground side) shorted	P.52B-157
B1B55	seat belt switch (RH) circuit (power supply side) shorted	P.52B-157
B1B56	seat belt switch (RH) circuit open	P.52B-157
B1B70	Malfunction of G-sensor inside front impact sensor (LH)	P.52B-162
B1B71	Malfunction of G-sensor inside front impact sensor (RH)	P.52B-162
B1B72	Malfunction of G-sensor inside side impact sensor (LH)	P.52B-164
B1B75	Malfunction of G-sensor inside side impact sensor (RH)	P.52B-164
B1BA3	Driver's seat slide sensor malfunction (occupant classification-ECU)	P.52B-165
B1BA5	SRS-ECU squib count mismatch	P.52B-167
B1BAA	Occupant classification-ECU configuration mismatch	P.52B-168
B1BC7	SRS-ECU (record data full) system	P.52B-170
B1C27	Side-airbag module (LH) (squib) system (shorted to squib circuit ground)	P.52B-171
B1C28	Side-airbag module (LH) (squib) system (shorted to squib circuit power supply)	P.52B-175
B1C29	Side-airbag module (LH) (squib) system (squib circuit open)	P.52B-179

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Diagnostic trouble Code No.	Inspection item	Reference page
B1C2A	Side-airbag module (LH) (squib) system (short circuit between squib circuit terminals)	P.52B-182
B1C2B	Side-airbag module (RH) (squib) system (shorted to squib circuit ground)	P.52B-187
B1C2C	Side-airbag module (RH) (squib) system (shorted to squib circuit power supply)	P.52B-191
B1C2D	Side-airbag module (RH) (squib) system (squib circuit open)	P.52B-194
B1C2E	Side-airbag module (RH) (squib) system (short circuit between squib circuit terminals)	P.52B-198
B1C38	Driver's pre-tensioner (squib) system (shorted to squib circuit ground)	P.52B-202
B1C39	Driver's pre-tensioner (squib) system (shorted to squib circuit power supply)	P.52B-206
B1C3A	Driver's pre-tensioner (squib) system (squib circuit open)	P.52B-210
B1C3B	Driver's pre-tensioner (squib) system (short circuit between squib circuit terminals)	P.52B-214
B1C47	Front passenger's pre-tensioner (squib) system (shorted to squib circuit ground)	P.52B-219
B1C48	Front passenger's pre-tensioner (squib) system (shorted to squib circuit power supply)	P.52B-224
B1C49	Front passenger's pre-tensioner (squib) system (squib circuit open)	P.52B-228
B1C4A	Front passenger's pre-tensioner (squib) system (short circuit between squib circuit terminals)	P.52B-232
B210D	Battery abnormal low voltage	P.52B-238
B212C	Open circuit to IG1 power supply (fuse No. 12 circuit)	P.52B-244
B212D	Open circuit to IG1 power supply (fuse No. 18 circuit)	P.52B-244
B2207	Occupant restraint controller internal 1	P.52B-248
B2208	Occupant restraint controller internal 2	P.52B-248
B2209	Occupant restraint controller internal 3	P.52B-248
B220A	Occupant restraint controller internal 4	P.52B-248
B220B	Occupant restraint controller firing stored energy	P.52B-248
B220C	Occupant restraint controller accelerometer 1	P.52B-248
B220D	Occupant restraint controller accelerometer 2	P.52B-248
B223D	OCM (Occupant classification-ECU) DTC present	P.52B-249
U0019	Bus off (CAN-B)	P.52B-251
U0141	ETACS CAN timeout	P.52B-252
U0154	Occupant classification-ECU CAN timeout	P.52B-254
U0155	Combination meter CAN timeout	P.52B-255
U0164	A/C -ECU CAN timeout	P.52B-257

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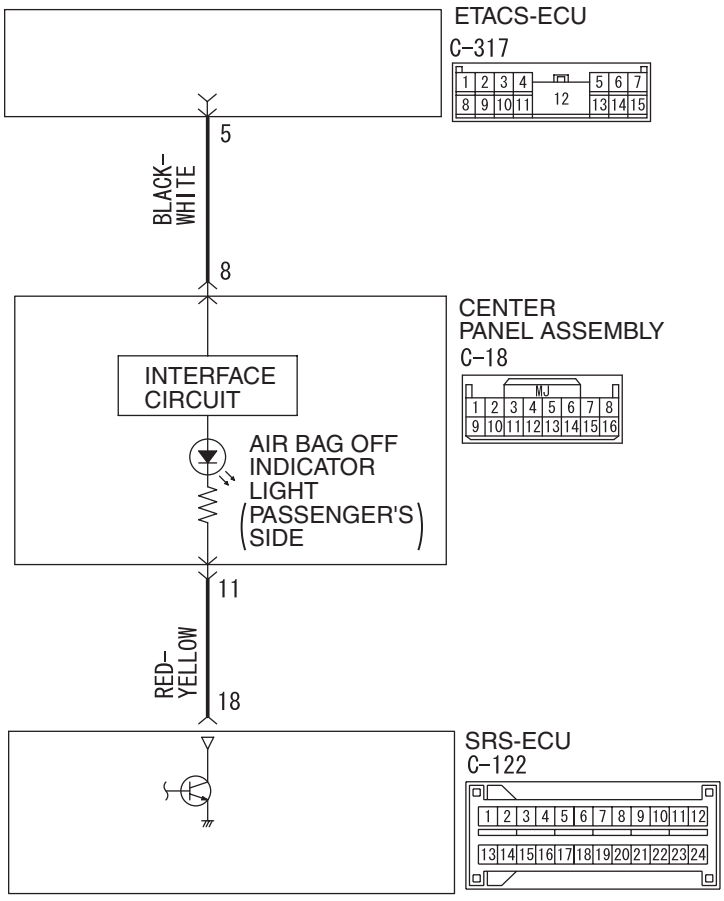
Diagnostic trouble Code No.	Inspection item	Reference page
U0168	KOS -ECU or WCM CAN timeout	P.52B-258
U0170	Front impact sensor (LH) communication error	P.52B-260
U0171	Front impact sensor (RH) communication error	P.52B-263
U0172	Side impact sensor (LH) communication error	P.52B-266
U0175	Side impact sensor (RH) communication error	P.52B-269
U0184	Audio CAN timeout	P.52B-272
U0195	Satellite radio tuner CAN timeout	P.52B-273
U0197	Hands free Module CAN timeout	P.52B-275
U1414	Defective Coding Data	P.52B-276
U1415	Coding not completed/Data fail	P.52B-278

DIAGNOSTIC TROUBLE CODE PROCEDURES <SRS-ECU>

DTC B1206: Passenger's Air Bag OFF Indicator Light (Open Circuit)

Air Bag OFF Indicator Light Drive Circuit



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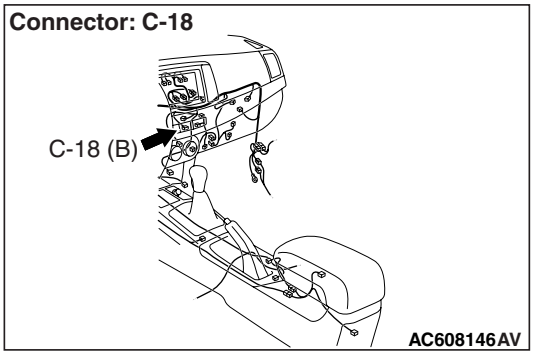
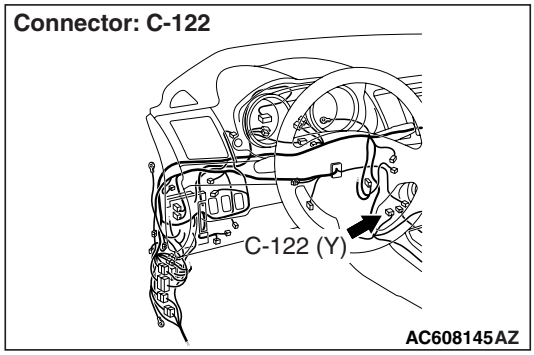




⚠ CAUTION

If DTC B1206 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger's air bag OFF indicator light is supplied from the ignition switch (IG1).
- The passenger's air bag OFF indicator light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.
- If a failure occurs in the system, the SRS-ECU will stop sending that SRS warning light "OFF" signal, thus causing the combination meter to illuminate the SRS warning light.
- The SRS warning light "OFF" signal is not sent to the combination meter in the cases below, either. Therefore, the combination meter will illuminate the SRS warning light.
  - The SRS-ECU connector is disconnected.
  - The SRS-ECU is not working normally due to a failure in its power supply lines.
  - The wiring harness between the passenger's air bag OFF indicator light and the SRS-ECU is broken.

DTC SET CONDITIONS

This DTC will be set if an open circuit has occurred in the wiring harness between the passenger's air bag OFF indicator light and the SRS-ECU.

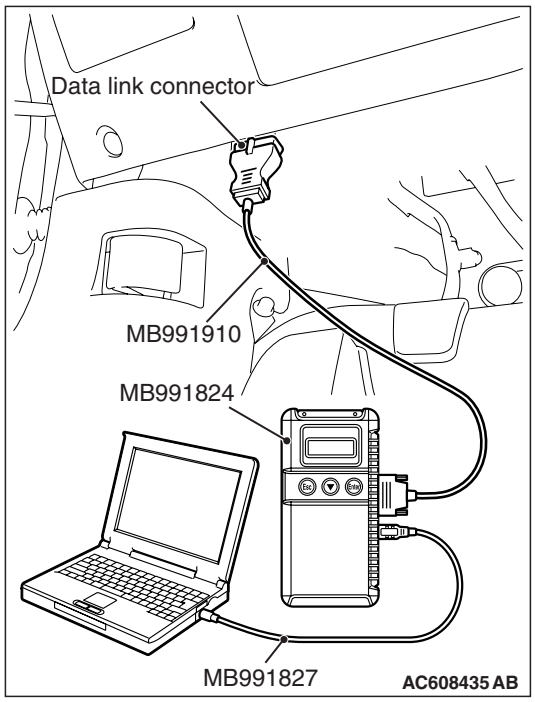
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of the passenger's air bag OFF indicator light

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Turn the ignition switch to the "ON" position.
(2) Check if the DTC is set.
(3) Turn the ignition switch to the "LOOK (OFF)" position.

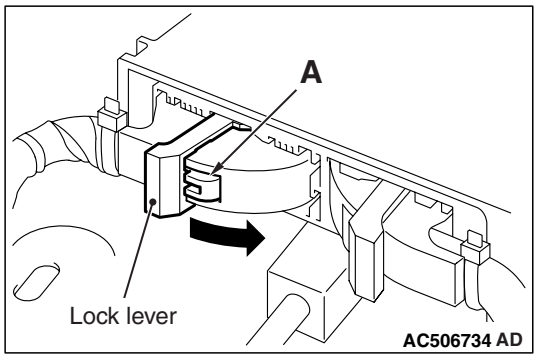
Q: Is DTC B1BAA, B2207, B2208, B2209, B220A, B220B, B220C or B220D set?

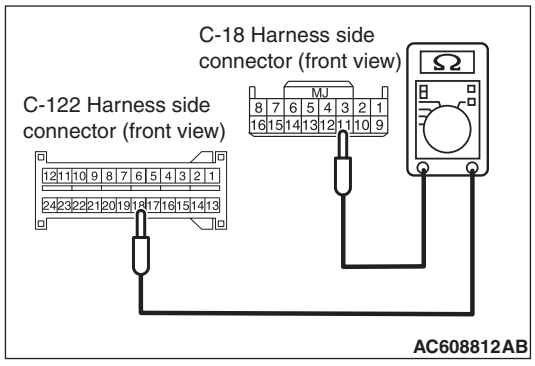
YES : Carry out the troubleshooting of the occupant classification-ECU or the occupant classification sensor system. (Refer to B1BAA, B2207, B2208, B2209, B220A, B220B, B220C or B220D).

NO : Go to Step 4.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-122 (terminal No.18) and the center panel assembly connector C-18 (terminal No.11).

(1) Disconnect SRS-ECU connector C-122.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.
(3) Disconnect the center panel assembly connector C-18.





(4) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-122 (terminal No.18) and the center panel assembly connector C-18 (terminal No.11)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1206 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 5.

NO : Repair the harness wires. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

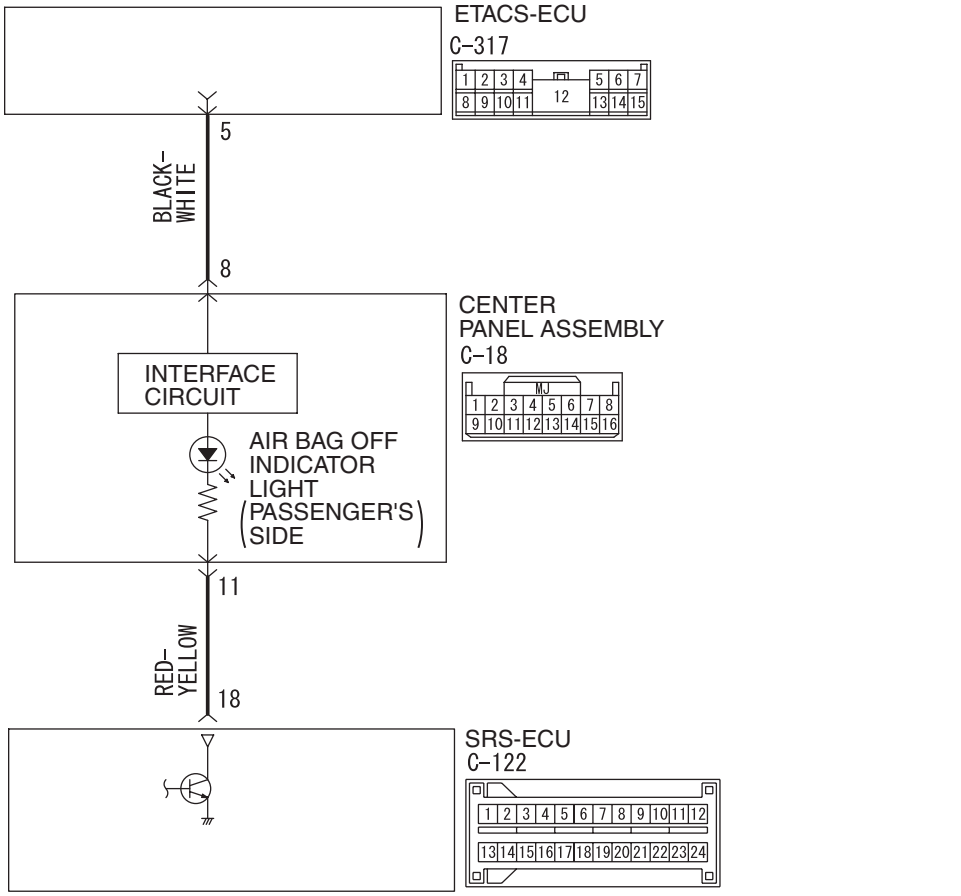
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1206 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1207: Passenger's Air Bag OFF Indicator Light (Short Circuit between Circuit Terminal)

Air Bag OFF Indicator Light Drive Circuit



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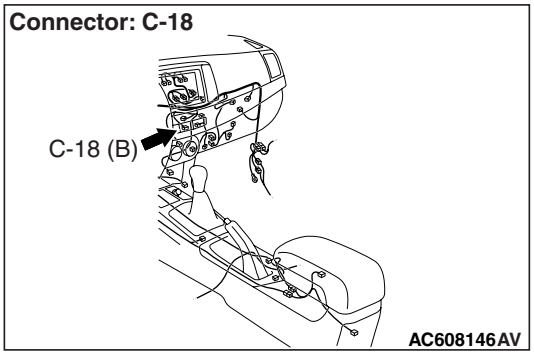
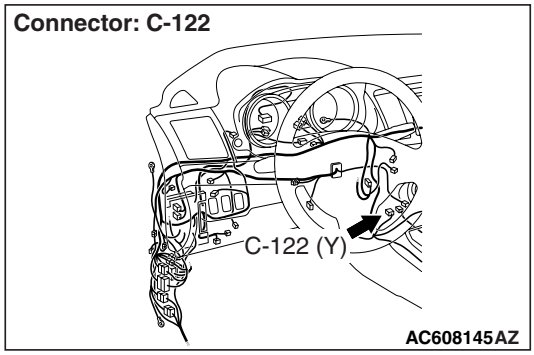
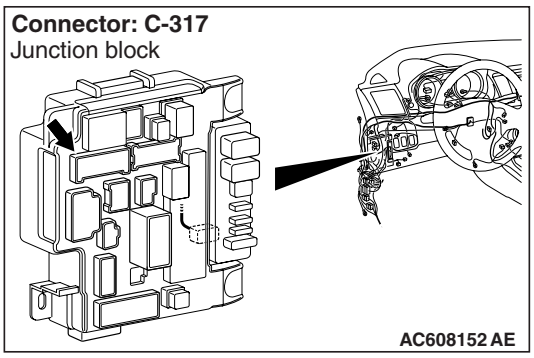






⚠ CAUTION

If DTC B1207 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- Power for the passenger's air bag OFF indicator light is supplied from the ignition switch (IG1).
- The passenger's air bag OFF indicator light illuminates when the ignition switch is turned to the "ON" position and goes out after approximately seven seconds if there is not a malfunction in the SRS system.
- If a failure occurs in the system, the SRS-ECU will stop sending that SRS warning light "OFF" signal, thus causing the combination meter to illuminate the SRS warning light.
- The SRS warning light "OFF" signal is not sent to the combination meter in the cases below, either. Therefore, the combination meter will illuminate the SRS warning light.
  - The SRS-ECU connector is disconnected.
  - The SRS-ECU is not working normally due to a failure in its power supply lines.
  - The wiring harness between the passenger's air bag OFF indicator light and the SRS-ECU is broken.

DTC SET CONDITIONS

This DTC will be set if the passenger's air bag OFF indicator light driving circuit is short to ground. If the vehicle condition returns to normal, DTC B1207 will be automatically erased, and the warning light will go out.

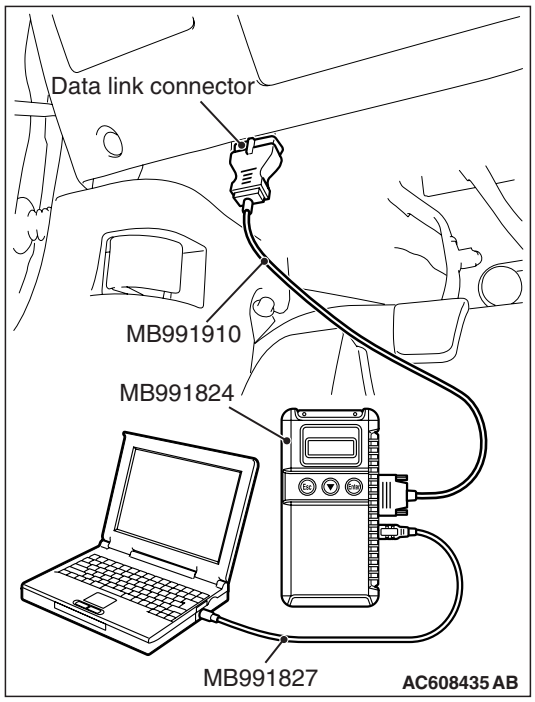
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU
- Malfunction of the passenger's air bag OFF indicator light

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Using scan tool MB991958, read the diagnostic trouble code.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Turn the ignition switch to the "ON" position.
(2) Check if the DTC is set.
(3) Turn the ignition switch to the "LOOK (OFF)" position.

Q: Is DTC B1BAA, B2207, B2208, B2209, B220A, B220B, B220C or B220D set?

YES : Carry out the troubleshooting of the occupant classification-ECU or the occupant classification sensor system. (Refer to assembly B1BAA, B2207, B2208, B2209, B220A, B220B, B220C or B220D).
NO : Go to Step 4.

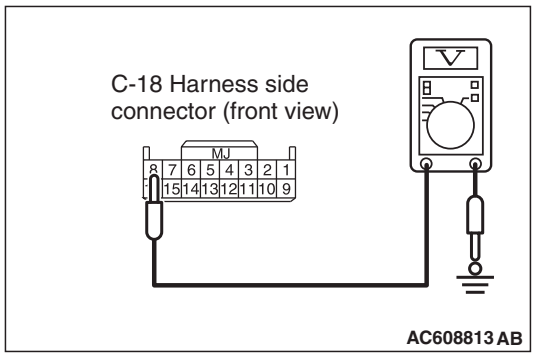
STEP 4. Check the center panel assembly connector C-18.

Q: Is the connector correctly engaged?

YES : Go to Step 5.
NO : Engage the connector correctly. Then go to Step 10.

STEP 5. Measure the voltage at center panel assembly connector C-18.

(1) Disconnect center panel assembly connector C-18.
(2) Measure the voltage between C-18 harness side connector terminal 8 and body ground.
Voltage should measure approximately 12 volt.



Q: Is the check result satisfactory?

YES : Go to Step 7.
NO : Go to Step 6.

STEP 6. Check the harness for short circuit between ETACS-ECU connector C-317 (terminal No.5) and center panel assembly connector C-18 (terminal No.8).

Q: Are the harness wires between center panel assembly connector C-18 (terminal No.8) and the ETACS-ECU connector C-317 (terminal No.5) in good condition?

YES : Go to Step 7.
NO : Repair the harness wires. Then go to Step 10.

STEP 7. Check SRS-ECU connector C-122.

Q: Is the connector correctly engaged?

YES : Go to Step 8.
NO : Engage the connector correctly. Then go to Step 10.

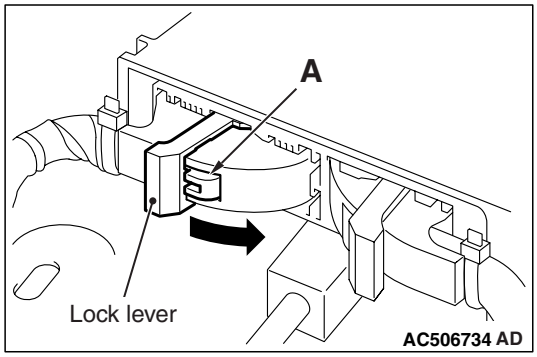
STEP 8. Check the harness for short circuit between center panel assembly connector C-18 (terminal No.11) and SRS-ECU connector C-122 (terminal No.18).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.18) and the center panel assembly connector C-18 (terminal No.11) in good condition?

YES : Go to Step 9.
NO : Repair the harness wires. Then go to Step 10.

STEP 9. Check the center panel assembly.

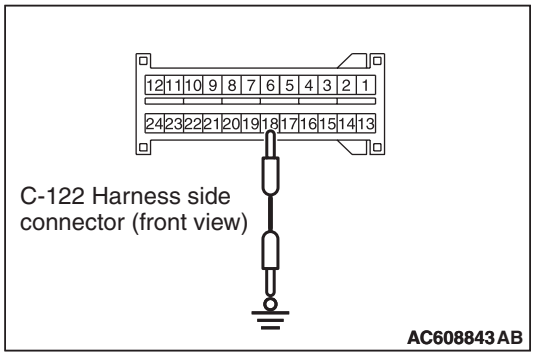
(1) Disconnect the negative battery terminal.
(2) Disconnected the SRS-ECU connector C-122, and measure at the wiring harness side.
(3) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.
(4) Connect the negative battery terminal.
(5) Turn the ignition switch to the "ON" position.



(6) Connect terminal No.18 to ground.

Q: Does the indicator light illuminate?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1207 set, replace the SRS-ECU (Refer to P.52B-364). Go to Step 10 .
NO : Replace the center panel assembly (Refer to GROUP 52A, Instrument Panel Assembly). Go to Step 10.



STEP 10. Recheck for diagnostic trouble code.

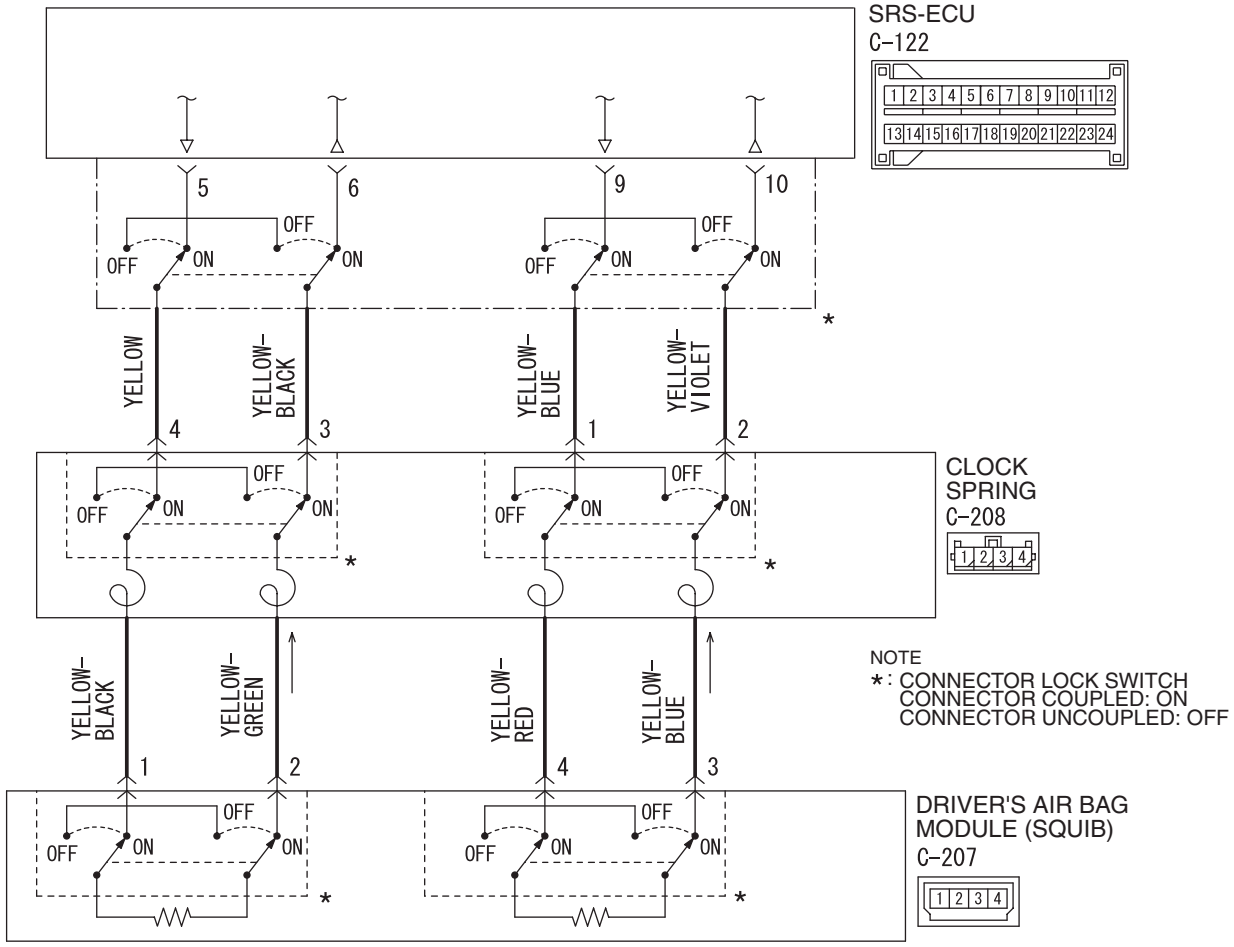
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1207 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1B00: Driver's Air Bag Module (1st Squib) System (Shorted to Squib Circuit Ground)
DTC B1B04: Driver's Air Bag Module (2nd Squib) System (Shorted to Squib Circuit Ground)

Driver's Air Bag Module (Squib) Circuit



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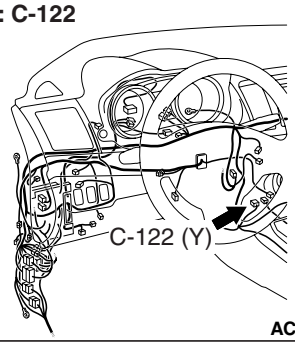
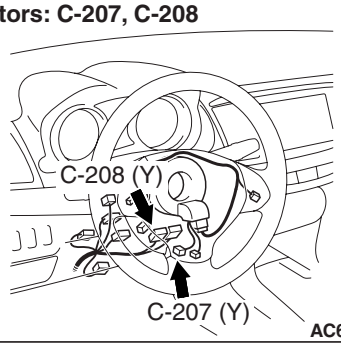
Connector: C-122



AC608145AZ

Connectors: C-207, C-208



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⚠ CAUTION

If DTC B1B00 <1st squib> or B1B04 <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

TSB Revision

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is sent to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's air bag module (squib).

TROUBLESHOOTING HINTS

- Malfunction of the clock spring
- Damaged harness wires and connectors
- Short to the ground in the driver's air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

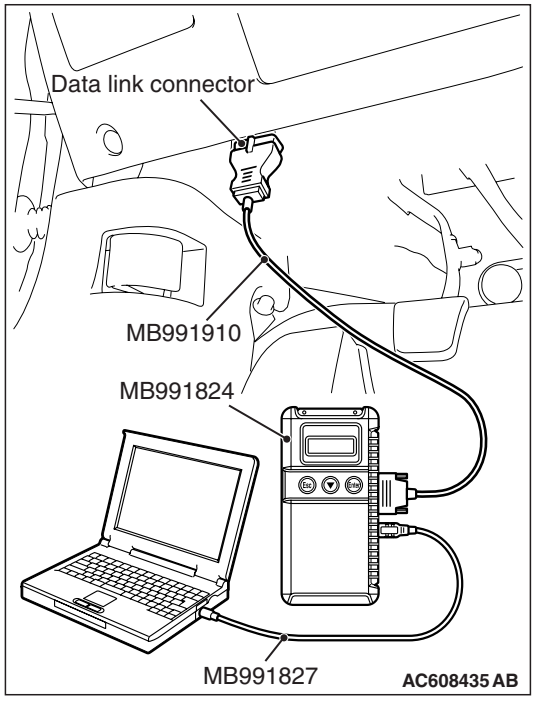
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

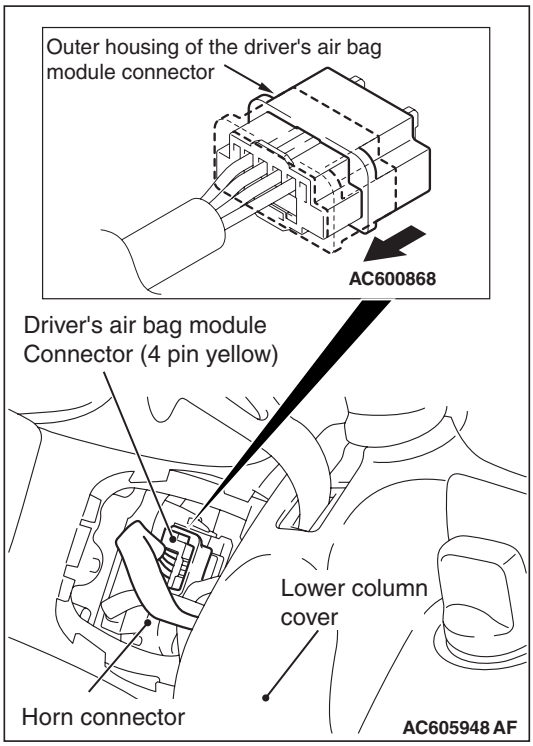
YES : Go to Step 3.

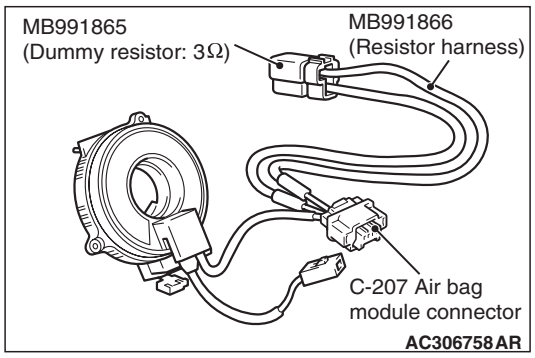
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check the driver's air bag module.

(1) Disconnect the negative battery terminal.

(2) Slide the outer housing of the driver' s air bag module connector C-207 in the arrow direction shown, and disconnect the connector.


Outer housing of the driver's air bag module connector
AC600868
Driver's air bag module Connector (4 pin yellow)
Lower column cover
Horn connector
AC605948 AF



(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into clock spring side air bag module connector C-207 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

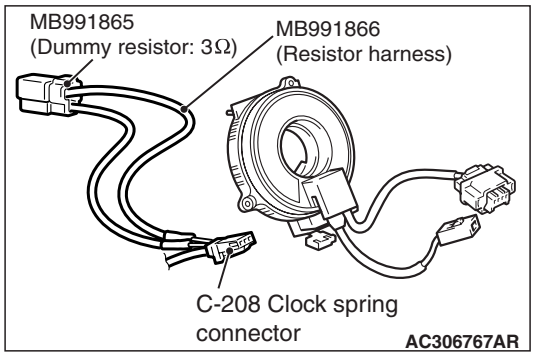
Always DTC B1B06 is set when checking DTC B1B00. This is because the second side terminal is isolated when checking it, DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B04 because the first side terminal is isolated.

(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC set?

YES : Go to Step 4.

NO : Replace the driver's air bag module (Refer to P.52B-367). Then go to Step 7.



STEP 4. Check the clock spring.

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-208.
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into clock spring harness side connector C-208 (terminal No. 3 and 4 <1st squib> or terminal No. 2 and 1 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

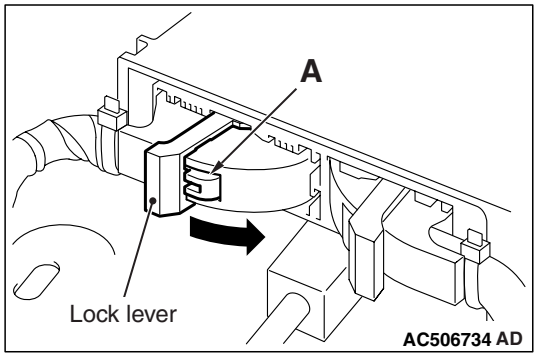
⚠ CAUTION

Always DTC B1B06 is set when checking DTC B1B00. This is because the second side terminal is isolated when checking it, DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B04 because the first side terminal is isolated.

(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC set?

YES : Go to Step 5.
NO : Replace the clock spring (Refer to P.52B-367). Then go to Step 7.



STEP 5. Check the driver's air bag module circuit. Measure the resistance at the SRS-ECU connector C-122.

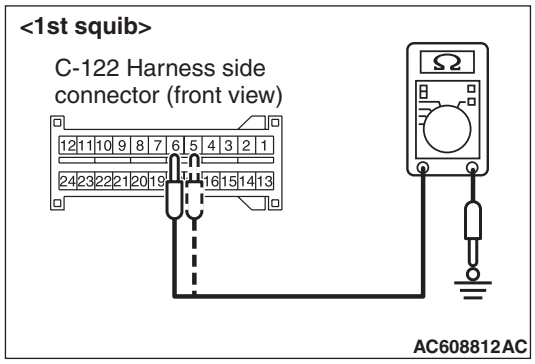
(1) Disconnect SRS-ECU connector C-122.

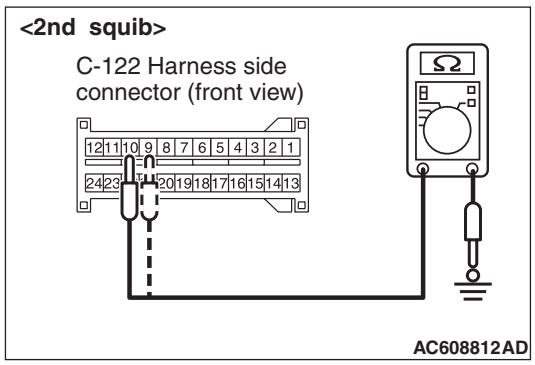
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.

⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the clock spring connector C-208 to short the squib circuit.

(3) Disconnect the clock spring connector C-208.





(4) Check for continuity between C-122 harness side connector terminals 5 and 6 <1st squib> or 9 and 10 <2nd squib> and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 6.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B00 <1st squib> or B1B04 <2nd squib> sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 7.

STEP 6. Check the harness for short circuit to ground between SRS-ECU connector C-122 (terminal No.5 and 6 <1st squib> or terminal No.9 and 10 <2nd squib>) and clock spring connector C-208 (terminal No.4 and 3 <1st squib> or terminal No.1 and 2 <2nd squib>).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.5 and 6 <1st squib> or terminal No.9 and 10 <2nd squib>) and clock spring connector C-208 (terminal No.4 and 3 <1st squib> or terminal No. 1 and 2 <2nd squib>) in good condition?

YES : Go to Step 7.

NO : Replace the harness wires between SRS-ECU connector C-122 and clock spring connector C-208. Then go to Step 7.

TSB Revision

STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

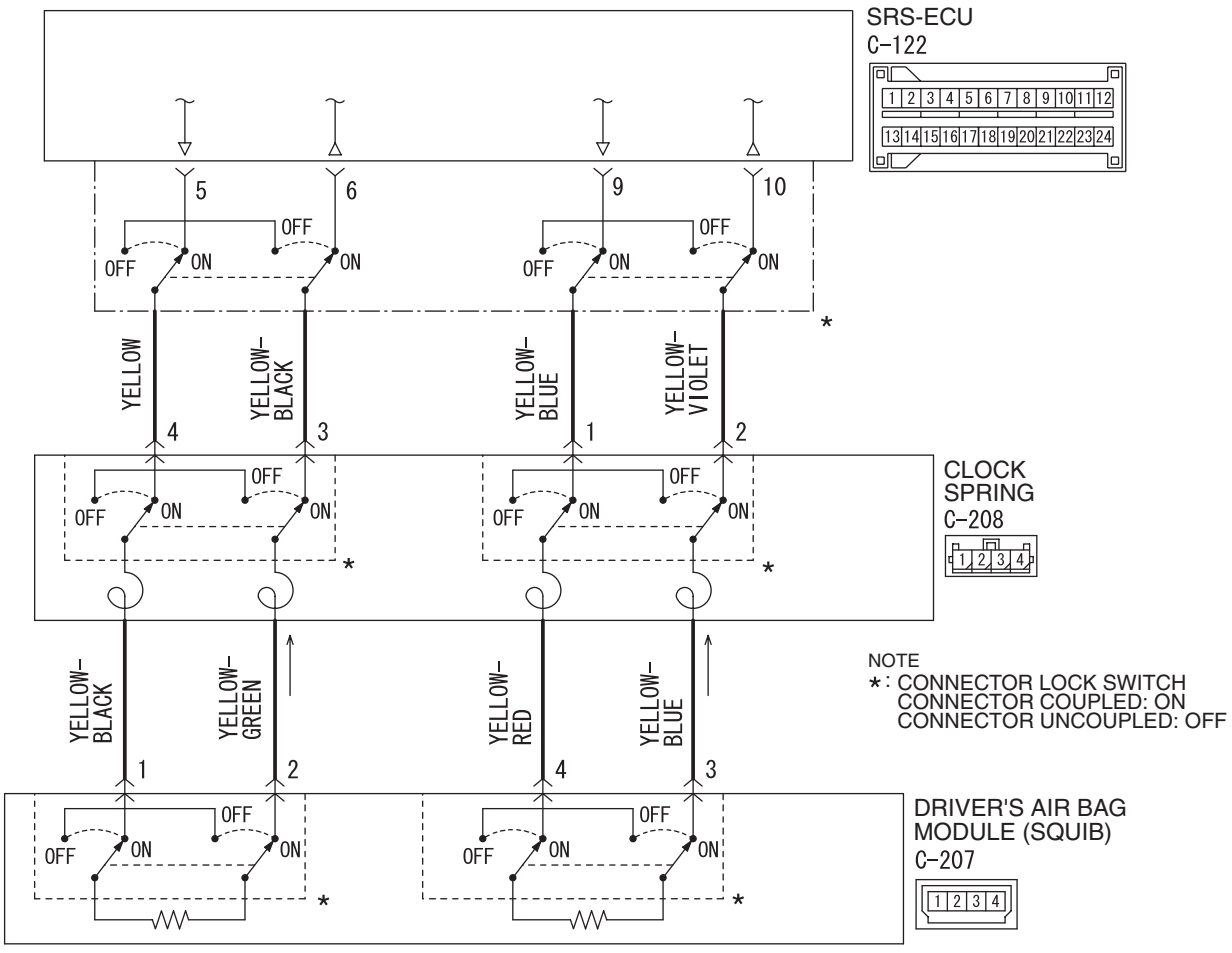
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B00 <1st squib> or B1B04 <2nd squib> set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1B01: Driver's Air bag Module (1st squib) System (Shorted to Squib Circuit Power Supply)
DTC B1B05: Driver's Air bag Module (2nd squib) System (Shorted to Squib Circuit Power Supply

Driver's Air Bag Module (Squib) Circuit



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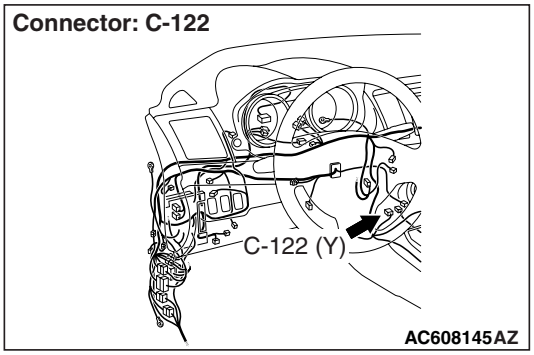
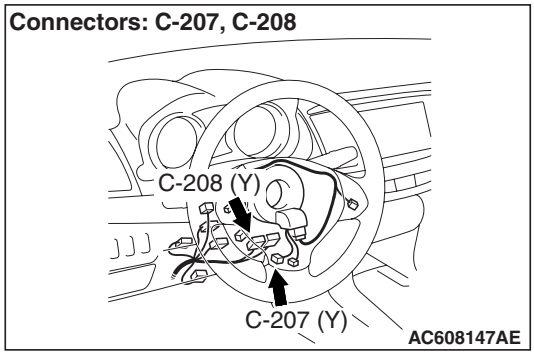




⚠ CAUTION

If DTC B1B01 <1st squib> or B1B05 <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's air bag module (squib).

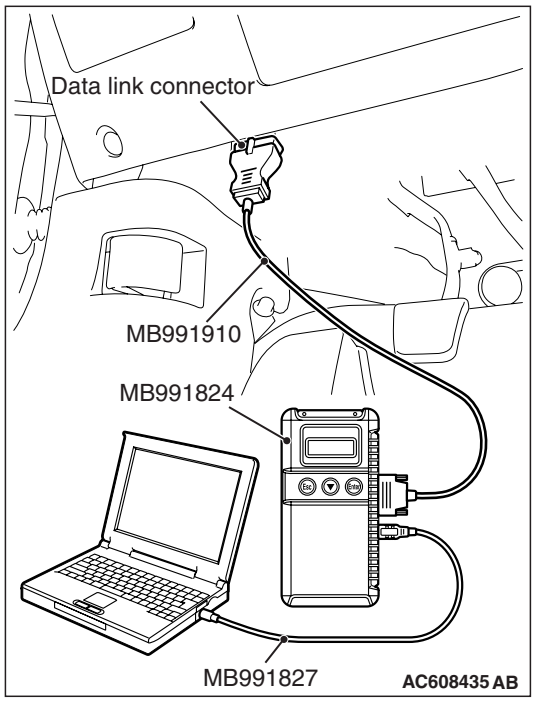
TROUBLESHOOTING HINTS

- Malfunction of the clock spring
- Damaged harness wires and connectors
- Short to the power supply in the driver's air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

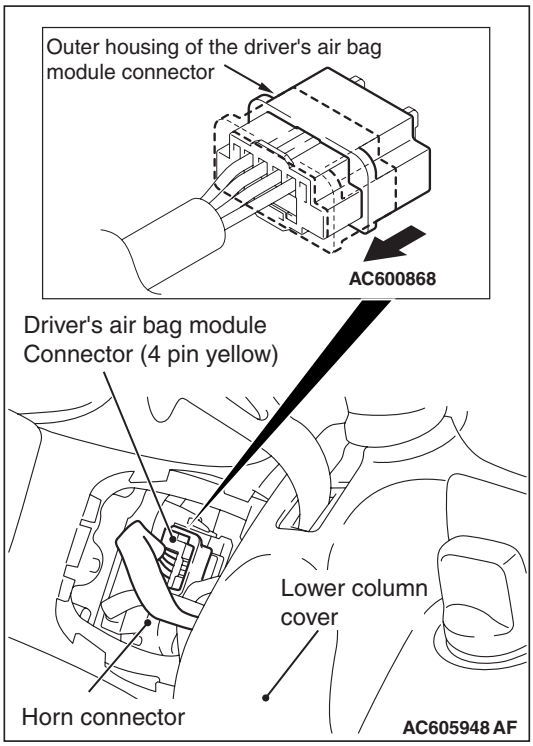
Q: Is the DTC set?

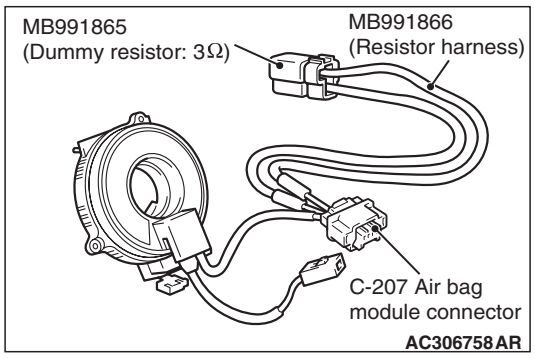
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check the driver's air bag module.

(1) Disconnect the negative battery terminal.

(2) Slide the outer housing of the driver' s air bag module connector C-207 in the arrow direction shown, and disconnect the connector.


Outer housing of the driver's air bag module connector
AC600868
Driver's air bag module Connector (4 pin yellow)
Lower column cover
Horn connector
AC605948 AF



(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into clock spring side air bag module connector C-207 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

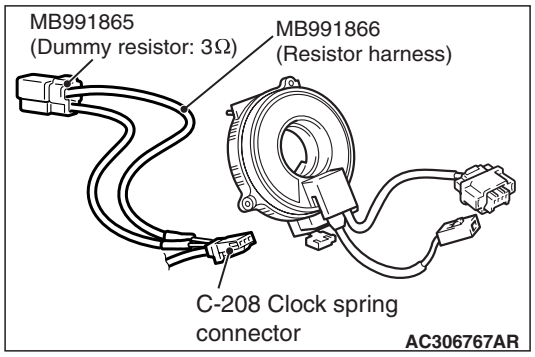
Always DTC B1B06 is set when checking DTC B1B01. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B05 because the first side terminal is isolated.

(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC set?

YES : Go to Step 4.

NO : Replace the driver's air bag module (Refer to P.52B-367). Then go to Step 7.



STEP 4. Check the clock spring.

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-208.
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into clock spring harness side connector C-208 (terminal No.3 and 4 <1st squib> or terminal No. 2 and 1 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

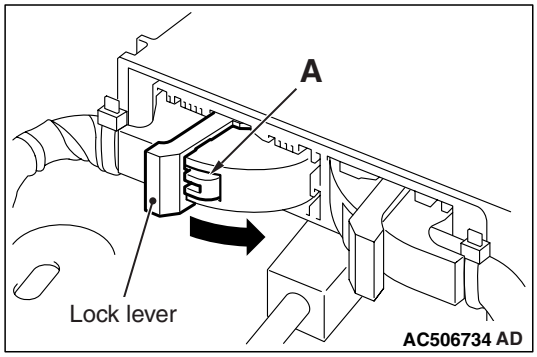
⚠ CAUTION

Always DTC B1B06 is set when checking DTC B1B01. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B05 because the first side terminal is isolated.

(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC set?

YES : Go to Step 5.
NO : Replace the clock spring (Refer to P.52B-367). Then go to Step 7.



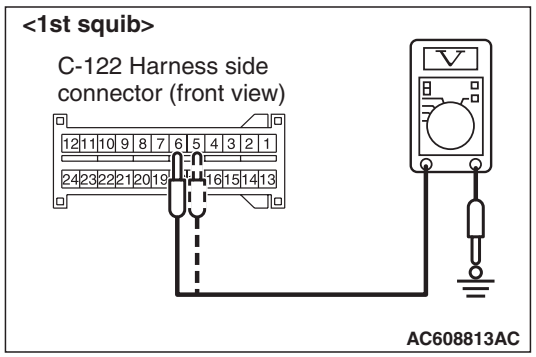
STEP 5. Check the driver's air bag module circuit. Measure the voltage at the SRS-ECU connector C-122.

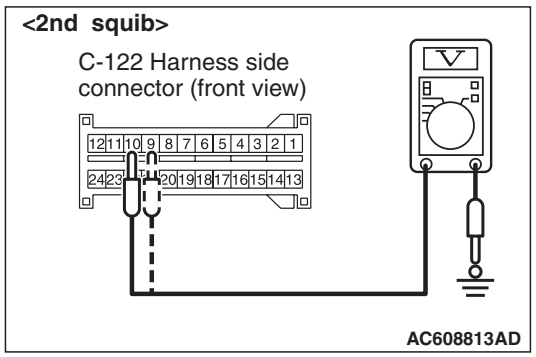
(1) Disconnect SRS-ECU connector C-122.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.

⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the clock spring connector C-208 to short the squib circuit.

(3) Disconnect the clock spring connector C-208.
(4) Turn the ignition switch to the "ON" position.
(5) Measure the voltage between C-122 harness side connector terminals 5 and 6 <1st squib> or 9 and 10 <2nd squib> and body ground.
Voltage should measure 0 volt.





Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B01 <1st squib> or B1B05 <2nd squib> sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 7.
NO : Go to Step 6.

STEP 6. Check the harness for short circuit to power supply between SRS-ECU connector C-122 (terminal No.5 and 6 <1st squib> or terminal No.9 and 10 <2nd squib>) and clock spring connector C-208 (terminal No.4 and 3 <1st squib> or terminal No. 1 and 2 <2nd squib>).

Q: Are harness wires between the SRS-ECU connector C-122 (terminal No.5 and 6 <1st squib> or terminal No.9 and 10 <2nd squib>) and clock spring connector C-208 (terminal No.4 and 3 <1st squib> or terminal No. 1 and 2 <2nd squib>) in good condition?

YES : Go to Step 7.
NO : Replace the harness wires between SRS-ECU connector C-122 and clock spring connector C-208. Then go to Step 7.

STEP 7. Recheck for diagnostic trouble code.

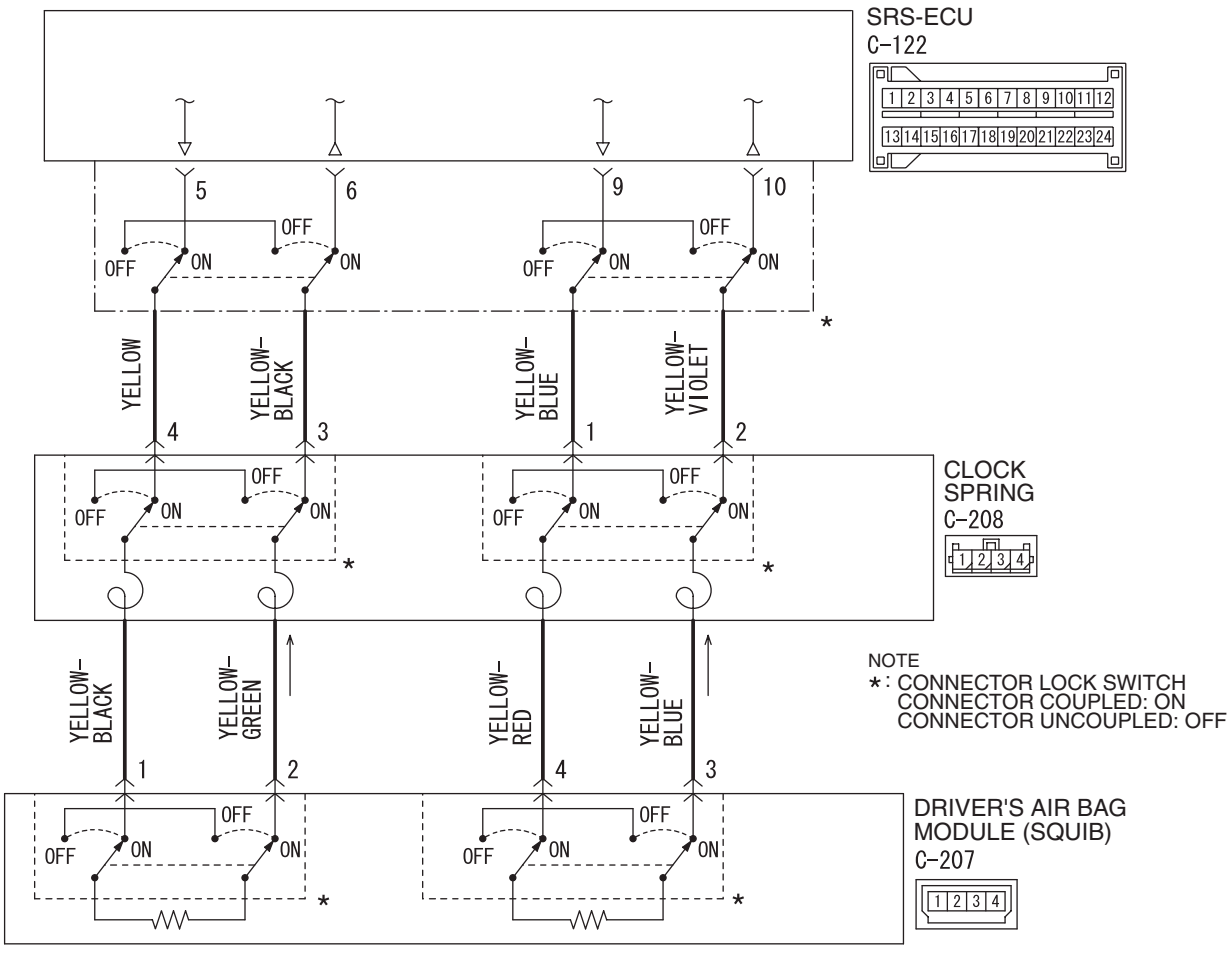
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B01 <1st squib> or B1B05 <2nd squib> set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1B02: Driver's Air Bag Module (1st squib) System (Squib Circuit Open)
DTC B1B06: Driver's Air Bag Module (2nd squib) System (Squib Circuit Open)

Driver's Air Bag Module (Squib) Circuit



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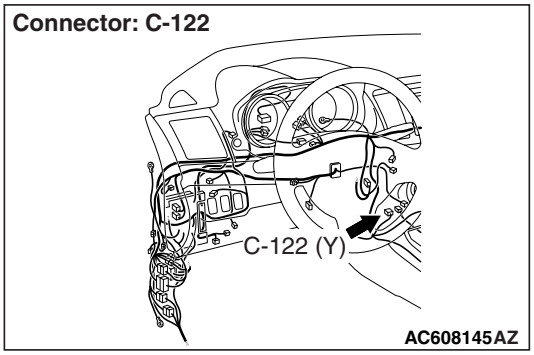
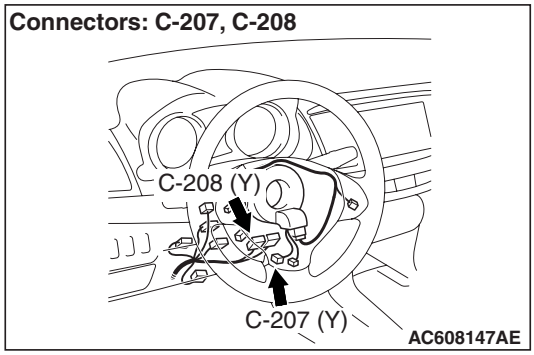




⚠ CAUTION

If DTCB1B02 <1st squib> or B1B06 <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

- This DTC is set if there is abnormal resistance between the input terminals of the driver's air bag module (squib). The most likely causes for this code to be set are the followings:
  - Open circuit in the driver's air bag module (squib) or harness
  - Open circuit in the clock spring
  - Malfunction of connector contact

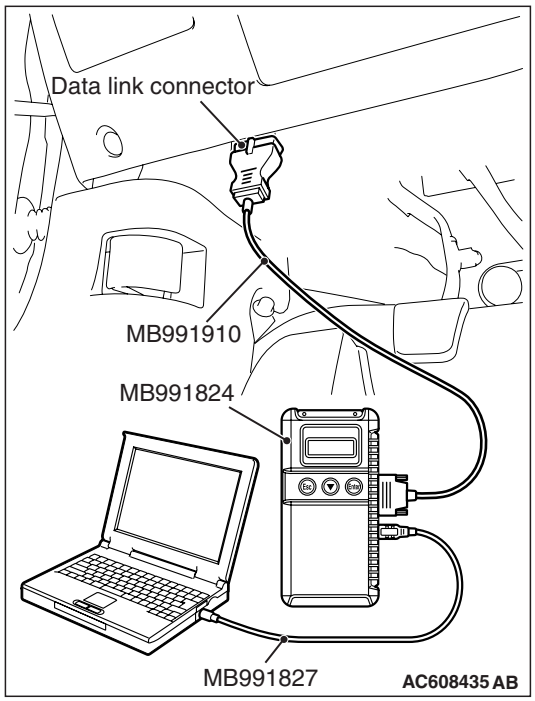
TROUBLESHOOTING HINTS

- Open circuit in the clock spring
- Open circuit due to improper neutral position of the clock spring
- Open circuit in the driver's air bag module (squib) circuit
- Disengaged driver's air bag module (squib) connector
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

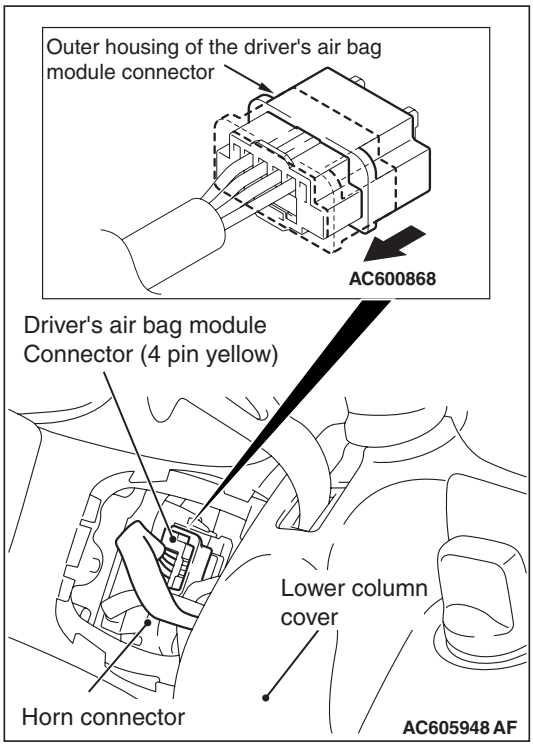
Q: Is the DTC set?

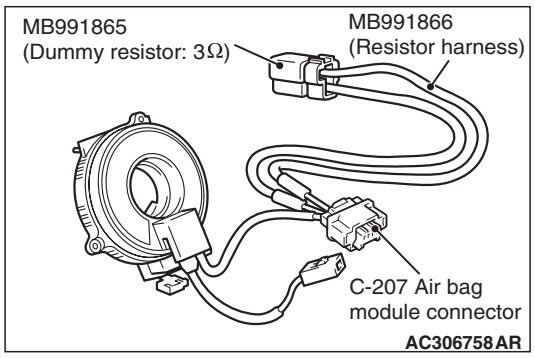
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check the driver's air bag module.

(1) Disconnect the negative battery terminal.

(2) Slide the outer housing of the driver' s air bag module connector C-207 in the arrow direction shown, and disconnect the connector.


Outer housing of the driver's air bag module connector
AC600868
Driver's air bag module Connector (4 pin yellow)
Lower column cover
Horn connector
AC605948 AF



(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into clock spring side of driver's air bag module connector C-207 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

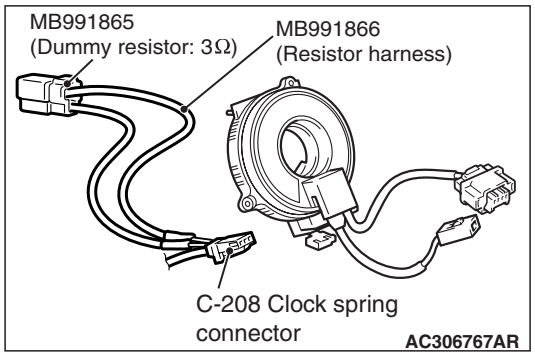
Always DTC B1B06 is set when checking DTC B1B02. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B06 because the first side terminal is isolated.

(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC set?

YES : Go to Step 4.

NO : Replace the driver's air bag module (Refer to P.52B-367). Then go to Step 6.



STEP 4. Check the clock spring.

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-208.
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into harness side of clock spring connector C-208 (terminal No.3 and 4 <1st squib> or terminal No.1 and 2 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

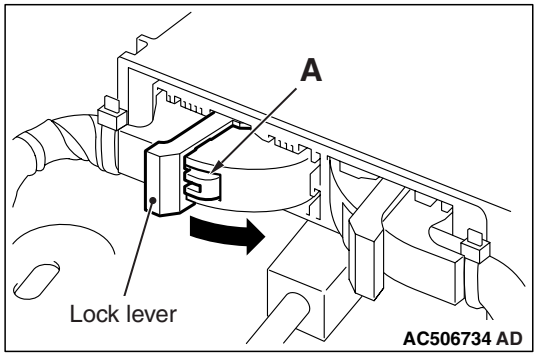
⚠ CAUTION

Always DTC B1B06 is set when checking DTC B1B02. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B06 because the first side terminal is isolated.

(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC set?

YES : Go to Step 5.
NO : Replace the clock spring (Refer to P.52B-367). Then go to Step 6.



STEP 5. Check the harness between the SRS-ECU connector C-122 (terminal No.5 and 6 <1st squib> or terminal No. 9 and 10 <2nd squib>) and the clock spring connector C-208 (terminal No.4 and 3 <1st squib> or terminal No. 2 and 1 <2nd squib>) for open circuit.

(1) Disconnect SRS-ECU connector C-122 and clock spring connector C-208.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.

⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the clock spring connector C-208 to short the squib circuit.

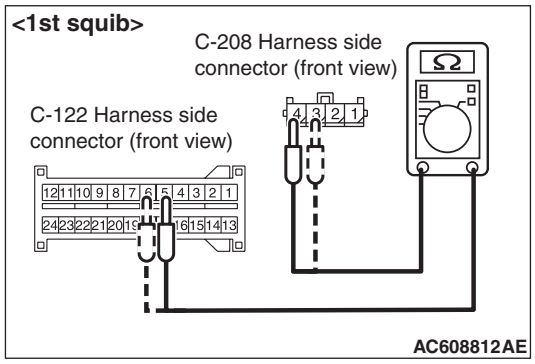
(3) Disconnect the clock spring connector C-208.

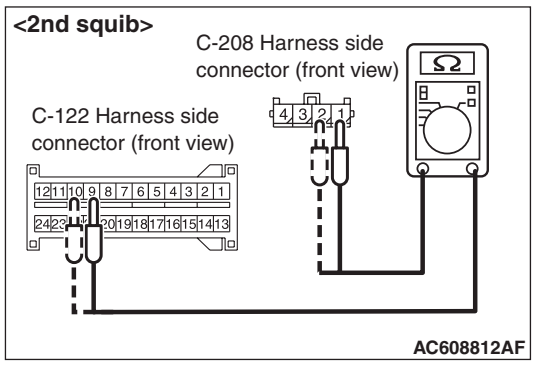
⚠ CAUTION

Do not insert a probe into the terminal from C-208 harness side connector front side directly, as the connector contact pressure may be weakened.

(4) Check for continuity between the following terminals. It should be less than 2 ohms.

- SRS-ECU connector C-122 (terminal No.5) and the clock spring connector C-208 (terminal No.4) <1st squib>
- SRS-ECU connector C-122 (terminal No.6) and the clock spring connector C-208 (terminal No.3) <1st squib>





- SRS-ECU connector C-122 (terminal No.9) and the clock spring connector C-208 (terminal No.1) <2nd squib>
- SRS-ECU connector C-122 (terminal No.10) and the clock spring connector C-208 (terminal No.2) <2nd squib>

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTCB1B02 <1st squib> or B1B06 <2nd squib> set, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-122 and clock spring connector C-208. Then go to Step 6.

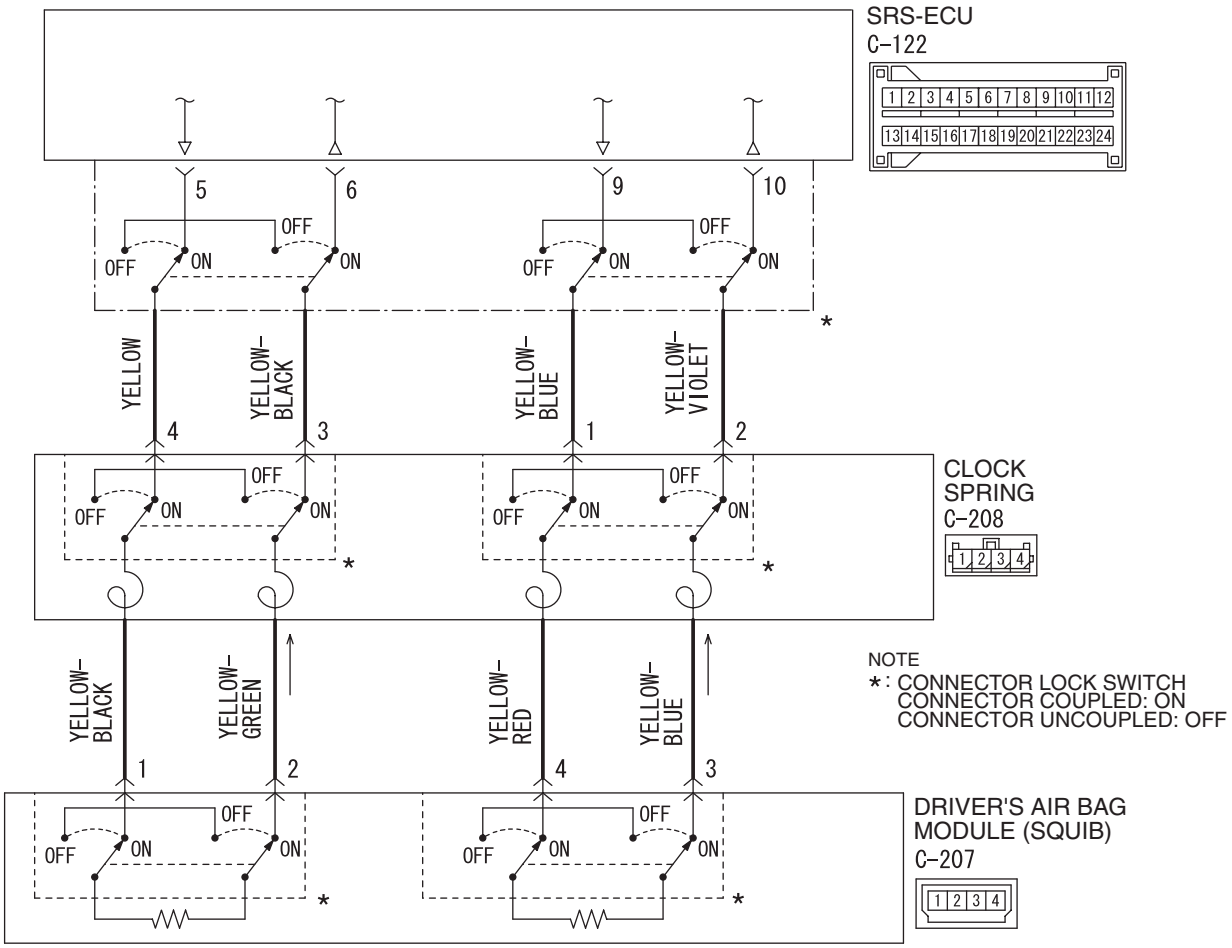
STEP 6. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTCB1B02 <1st squib> or B1B06 <2nd squib> set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1B03: Driver's Air Bag Module (1st squib) System (Short Circuit Between Squib Circuit Terminals)
DTC B1B07: Driver's Air Bag Module (2nd squib) System (Short Circuit Between Squib Circuit Terminals)

Driver's Air Bag Module (Squib) Circuit



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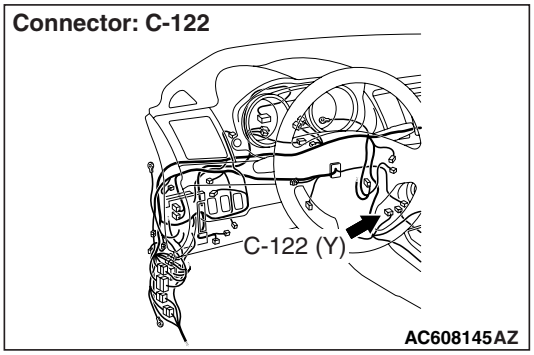
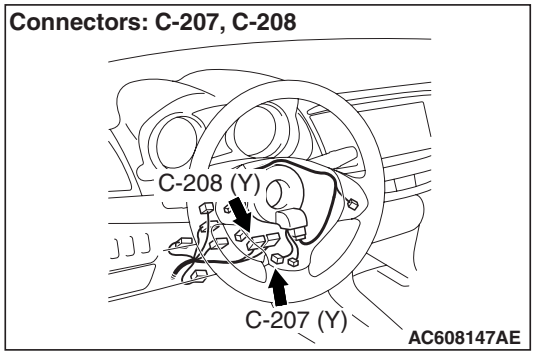
TSB Revision





⚠ CAUTION
If DTC B1B03 <1st squib> or B1B07 <2nd squib> is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module via the clock spring to inflate the air bag.

DTC SET CONDITIONS

- This DTC is set if there is abnormal resistance between the input terminals of the driver's air bag module (squib). The most likely causes for this code to be set are the followings:
  - Short circuit in driver's air bag module (squib) or harness
  - Short circuit in the clock spring

TROUBLESHOOTING HINTS

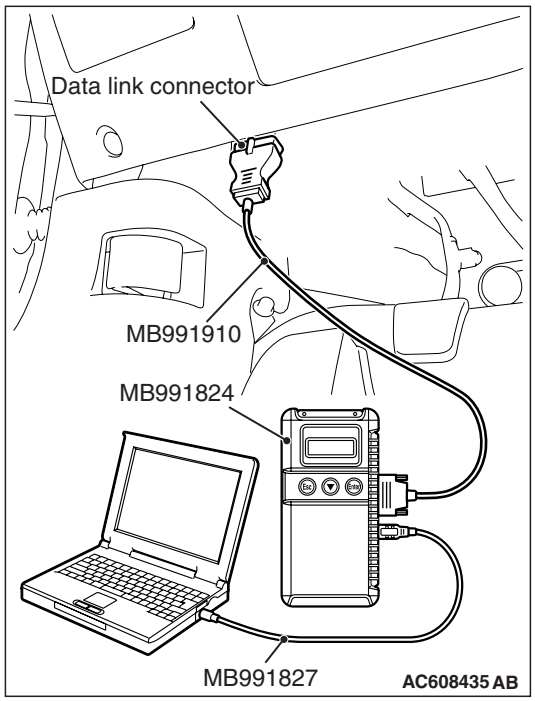
- Improper engaged connector or defective short spring*
- Short circuit in the clock spring
- Short circuit between the driver's air bag module (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-122, C-207 or C-208 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

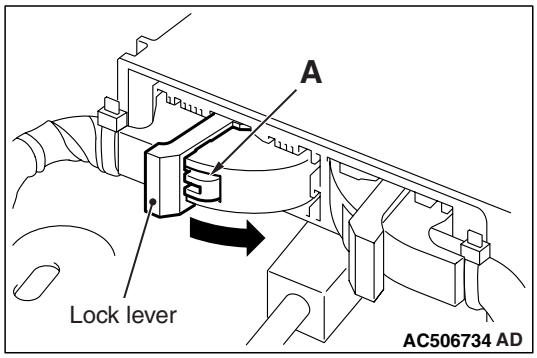
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

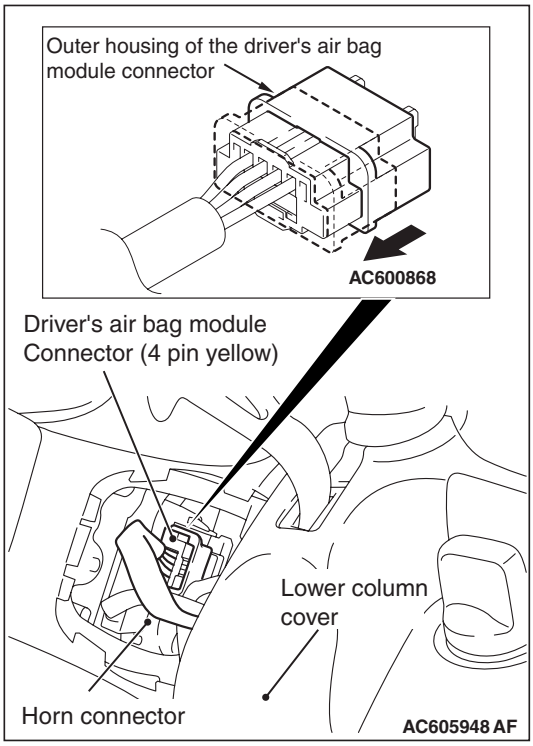
Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check SRS-ECU connector C-122, driver's air bag module connector C-207 and clock spring connector C-208.

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-122, C-207 and C-208, and then reconnect them.
(3) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.




Outer housing of the driver's air bag module connector
AC600868
Driver's air bag module Connector (4 pin yellow)
Lower column cover
Horn connector
AC605948 AF

(4) Slide the outer housing of the clock spring side of driver's air bag module connector C-207 in the arrow direction shown, and disconnect the connector.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

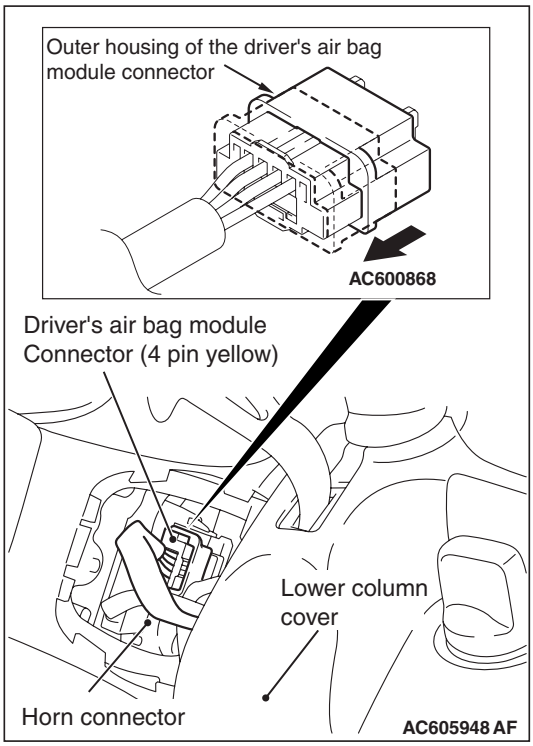
Q: Is DTC B1B03 <1st squib> or B1B07 <2nd squib> set?

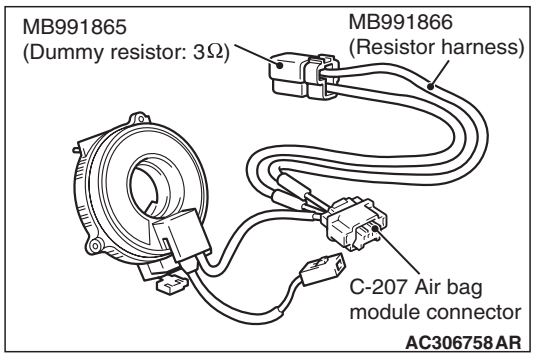
YES : Go to Step 4.
NO : The procedure is complete. It is assumed that DTC B1B03 <1st squib> or B1B07 <2nd squib> set because connector C-122, C-207 or C-208 was engaged improperly.

STEP 4. Check the driver's air bag module.

(1) Disconnect the negative battery terminal.

(2) Slide the outer housing of the clock spring side of driver's air bag module connector C-207 in the arrow direction shown, and disconnect the connector.


Outer housing of the driver's air bag module connector
AC600868
Driver's air bag module Connector (4 pin yellow)
Lower column cover
Horn connector
AC605948 AF



(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into clock spring side of driver's air bag module connector C-207 (terminal No.1 and 2 <1st squib> or No.3 and 4 <2nd squib>) by backprobing.

(5) Connect the negative battery terminal.

⚠ CAUTION

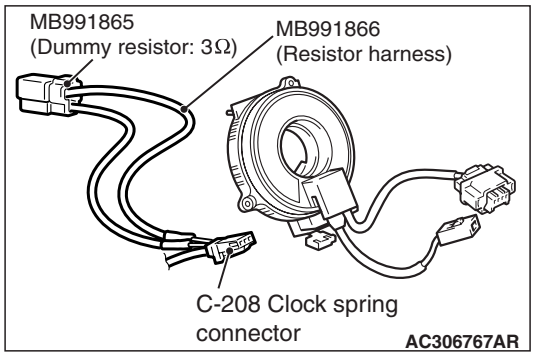
Always DTC B1B06 is set when checking DTC B1B03. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B07 because the first side terminal is isolated.

(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC set?

YES : Go to Step 5.

NO : Replace the driver's air bag module (Refer to P.52B-367). Then go to Step 8.



STEP 5. Check the clock spring.

(1) Disconnect the negative battery terminal.
(2) Disconnect the clock spring connector C-208.
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a probe into the terminal from C-208 harness side connector front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into clock spring harness side connector C-208 (terminal No.3 and 4 <1st squib> or No.1 and 2 <2nd squib>) by backprobing.
(5) Connect the negative battery terminal.

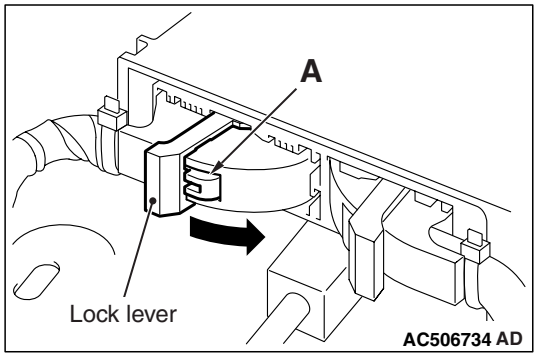
⚠ CAUTION

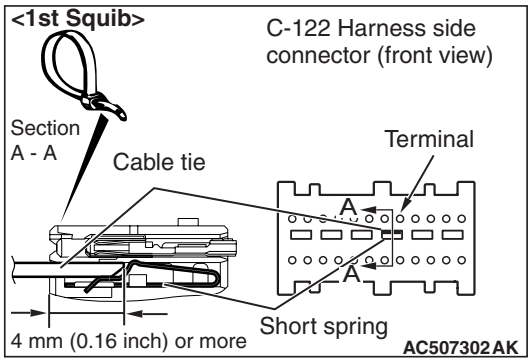
Always DTC B1B06 is set when checking DTC B1B03. This is because the second side terminal is isolated when checking it. DTC B1B06 is set but this is not a fault. In addition, always DTC B1B02 is set when checking DTC B1B07 because the first side terminal is isolated.

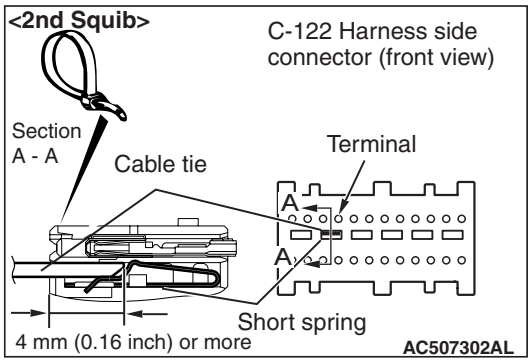
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC set?

YES : Go to Step 6.
NO : Replace the clock spring (Refer to P.52B-367). Then go to Step 8.







STEP 6. Check the driver's air bag module circuit. Measure the resistance at SRS-ECU connector C-122.

(1) Disconnect SRS-ECU connector C-122.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.

⚠ ***DANGER***

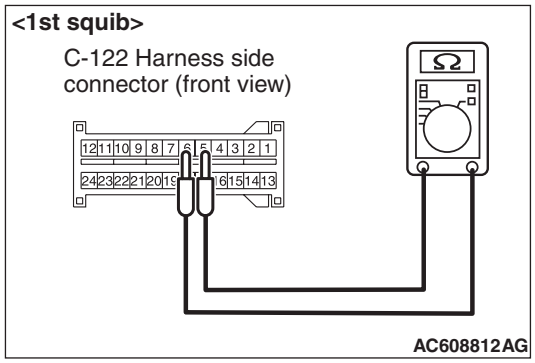
To prevent the air bag from deploying unintentionally, disconnect clock spring connector C-208 to short the squib circuit.

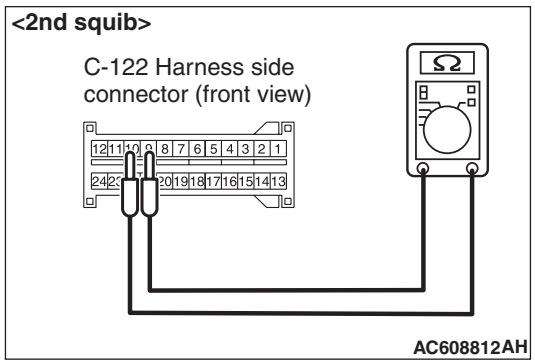
(3) Disconnect clock spring connector C-208.

⚠ **CAUTION**

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 5, 6 <1st squib> or 9, 10 <2nd squib> and the short spring to release the short spring.





(5) Check for continuity between C-122 harness side connector terminals 5 and 6 <1st squib> or 9 and 10 <2nd squib>. It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 7.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B03 <1st squib> or B1B07 <2nd squib> set, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 8.

STEP 7. Check the harness for short circuit between SRS-ECU connector C-122 (terminal No.5 and 6 <1st squib> or No.9 and 10 <2nd squib>) and clock spring connector C-208 (terminal No.4 and 3 <1st squib> or No.1 and 2 <2nd squib>).

Q: Are harness wires between SRS-ECU connector C-122 (terminal No.5 and 6 <1st squib> or No.9 and 10 <2nd squib>) and clock spring connector C-208 (terminal No.4 and 3 <1st squib> or No.1 and 2 <2nd squib>) in good condition?

YES : Go to Step 8.

NO : Replace the harness wires between SRS-ECU connector C-122 and clock spring connector C-208. Then go to Step 8.

STEP 8. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.

(2) Turn the ignition switch to the "ON" position.

(3) Check if the DTC is set.

(4) Turn the ignition switch to the "LOCK" (OFF) position.

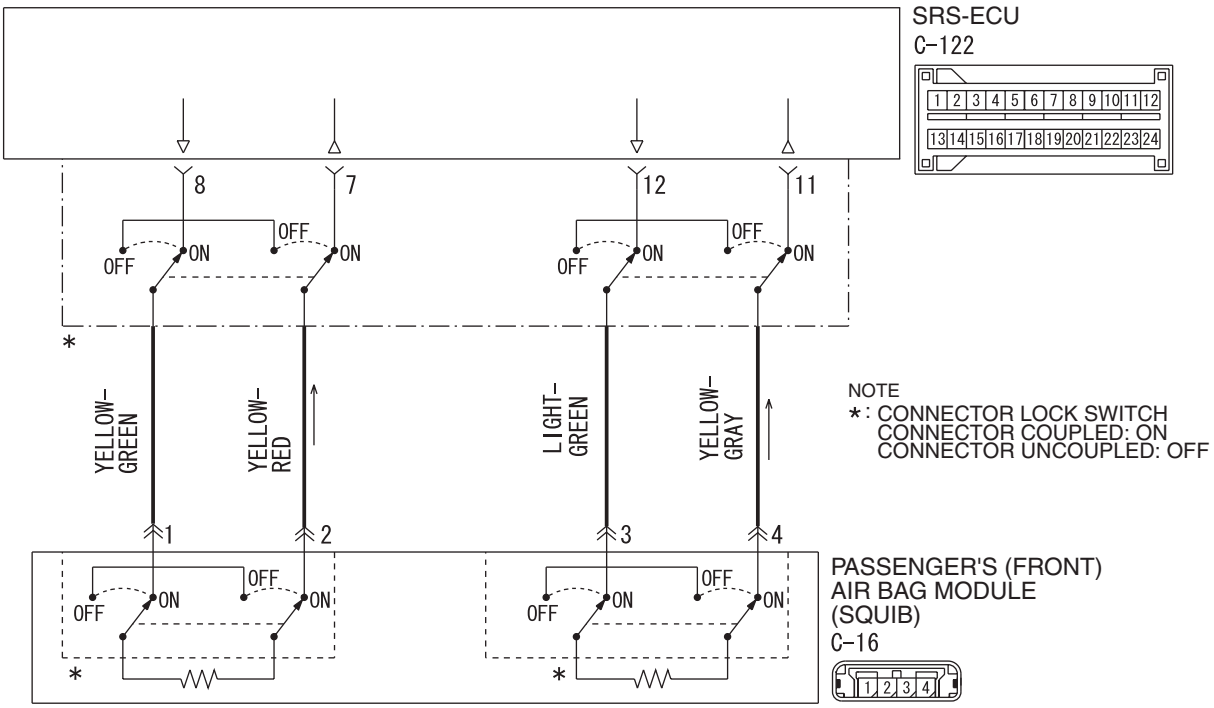
Q: Is DTC B1B03 <1st squib> or B1B07 <2nd squib> set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1B08: Passenger's (Front) Air Bag Module (1st squib) System (Shorted to Squib Circuit Ground)
DTC B1B0C: Passenger's (Front) Air Bag Module (2nd squib) System (Shorted to Squib Circuit Ground)

Passenger's (Front) Air Bag Module (Squib) Circuit



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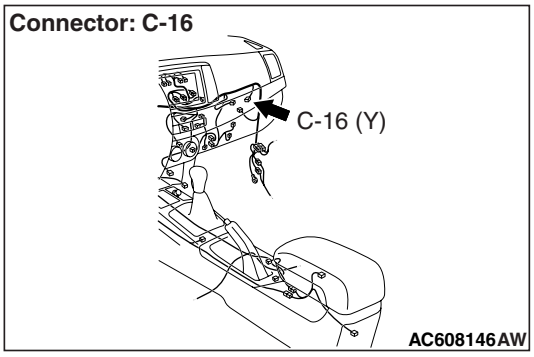
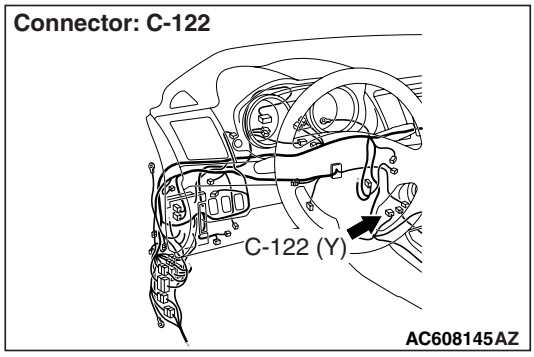




⚠ CAUTION
If DTC B1B08 <1st squib> or B1B0C <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

TSB Revision

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's (front) air bag module (squib).

TROUBLESHOOTING HINTS

- Damaged harness wires and connectors
- Short to the ground in the passenger's (front) air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

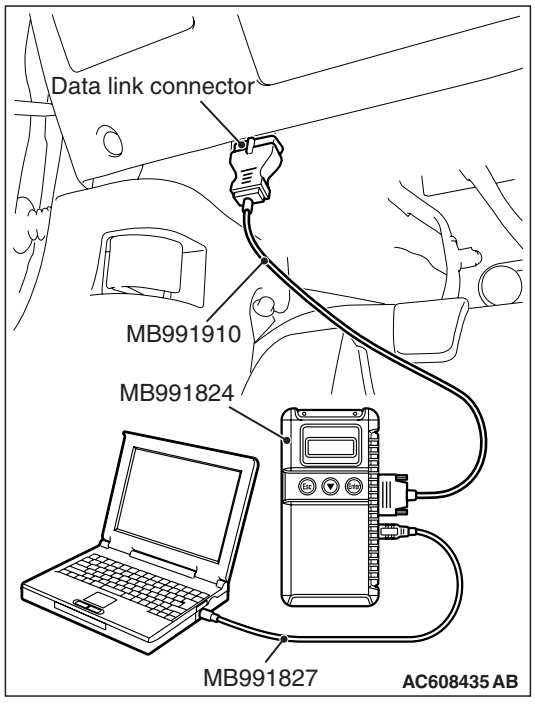
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

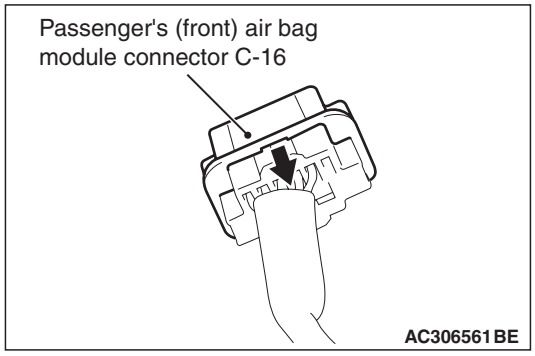
Q: Is the DTC set?

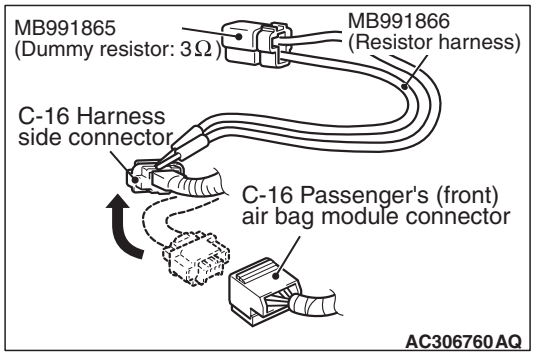
YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check the passenger's (front) air bag module.

(1) Disconnect the negative battery terminal.
(2) Disconnect the passenger's (front) air bag module connector C-16.
(3) Disconnect the connector while sliding the C-16 wiring harness side connector to the direction of the arrow.





(4) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(5) Insert special tool MB991866 into the harness side connector C-16 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.
(6) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1B0E is set when checking DTC B1B08. This is because the second side terminal is isolated when checking it. DTC B1B0E is set but this is not a fault. In addition, always DTC B1B0A is set when checking DTC B1B0C because the first side terminal is isolated.

(7) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC set?

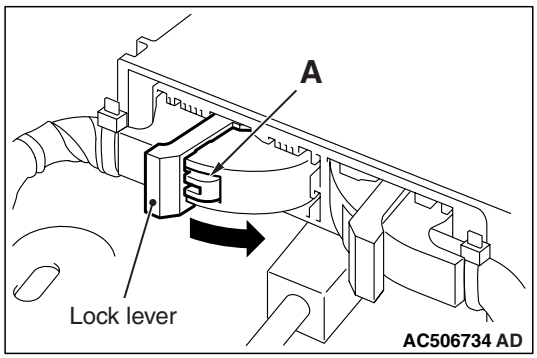
YES : Go to Step 4.

NO : Replace the passenger's (front) air bag module (Refer to P.52B-367). Then go to Step 6.

STEP 4. Check the passenger's (front) air bag module circuit. Measure the resistance at the SRS-ECU connector C-122.

(1) Disconnect SRS-ECU connector C-122.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.

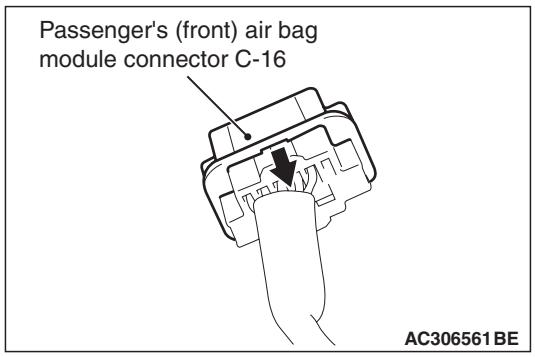


⚠ DANGER

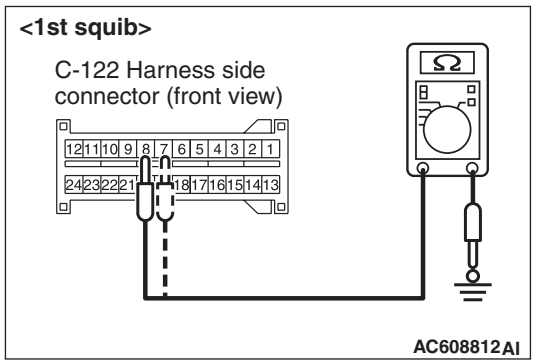
To prevent the air bag from deploying unintentionally, disconnect the passenger's (front) air bag module connector C-16 to short the squib circuit.

(3) Disconnect the passenger's (front) air bag module connector C-16.

(4) Disconnect the connector while sliding the C-16 wiring harness side connector to the direction of the arrow.



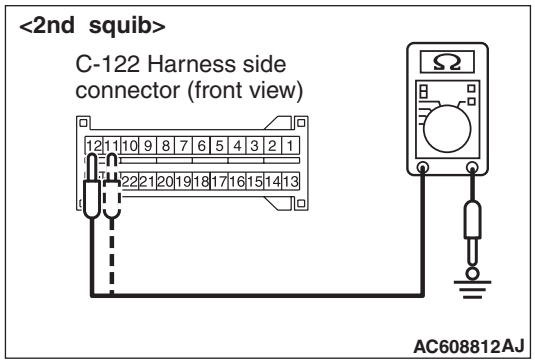
(5) Check for continuity between C-122 harness side connector terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib>, and body ground.
It should be an open circuit.



Q: Does continuity exist?

YES : Go to Step 5.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B08 <1st squib> B1B0C <2nd squib> sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 6.



STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-122 (terminal No.7 and 8 <1st squib> or terminal No.11 and 12 <2nd squib>) and passenger's (front) air bag module connector C-16 (terminal No.2 and 1 <1st squib> or terminal No.4 and 3 <2nd squib>).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.7 and 8 <1st squib> or terminal No.11 and 12 <2nd squib>) and passenger's (front) air bag module connector C-16 (terminal No.2 and 1 <1st squib> or terminal No.4 and 3 <2nd squib>) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-122 and passenger's (front) air bag module connector C-16. Then go to Step 6.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

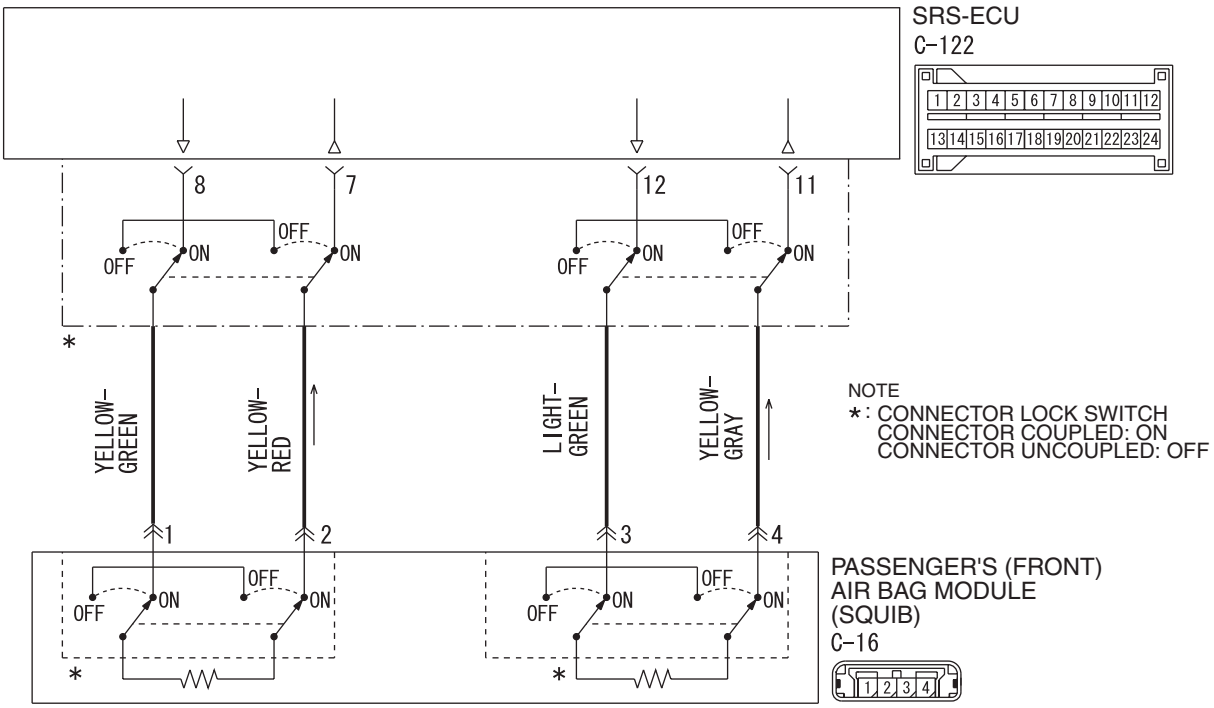
Q: Is DTC B1B08 <1st squib> B1B0C <2nd squib> set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1B09: Passenger's (Front) Air Bag Module (1st squib) System (Shorted to Squib Circuit Power Supply)
DTC B1B0D: Passenger's (Front) Air Bag Module (2nd squib) System (Shorted to Squib Circuit Power Supply

Passenger's (Front) Air Bag Module (Squib) Circuit



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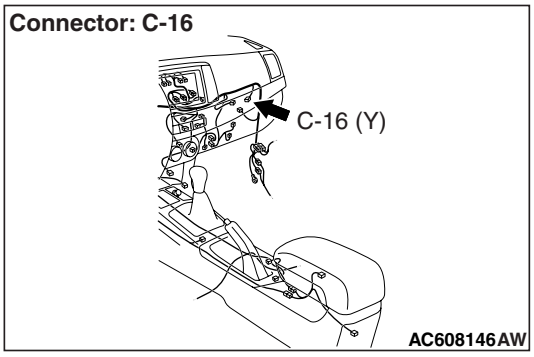
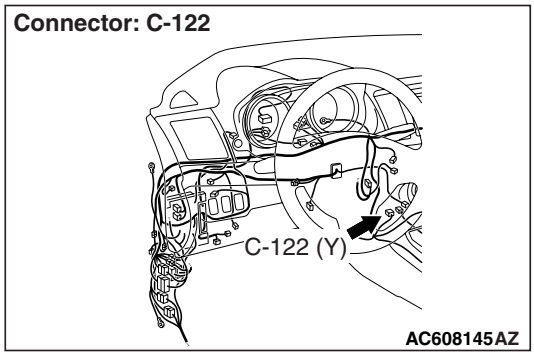




⚠ CAUTION
If DTC B1B09 <1st squib> or B1B0D <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

TSB Revision

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's (front) air bag module (squib).

TROUBLESHOOTING HINTS

- Damaged harness wires and connectors
- Short to the power supply in the passenger's (front) air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

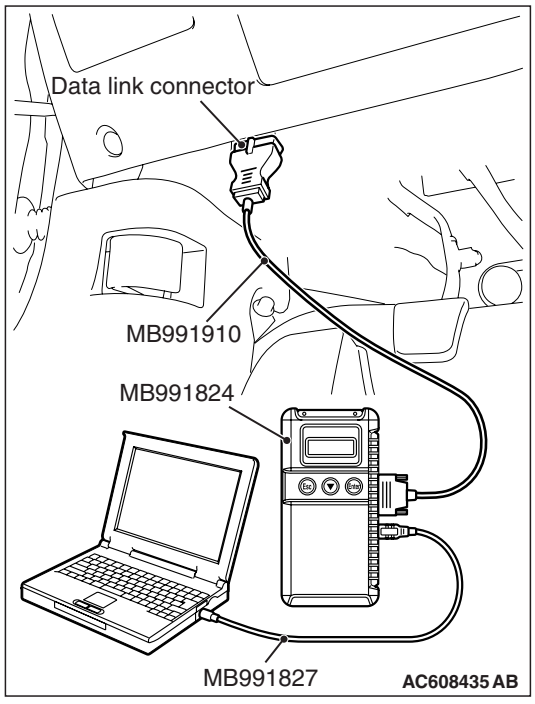
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

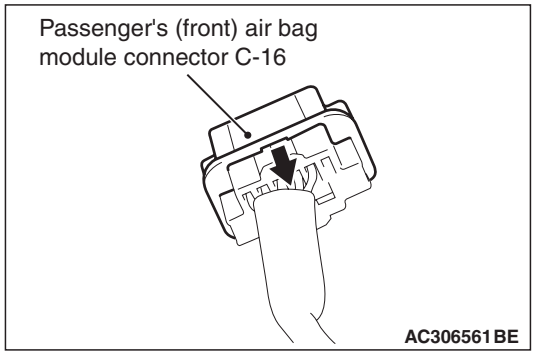
Q: Is the DTC set?

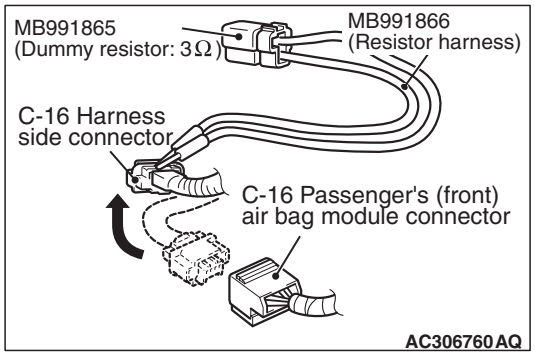
YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check the passenger's (front) air bag module.

(1) Disconnect the negative battery terminal.
(2) Disconnect the passenger's (front) air bag module connector C-16.
(3) Disconnect the connector while sliding the C-16 wiring harness side connector to the direction of the arrow.





(4) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(5) Insert special tool MB991866 into the harness side connector C-16 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.
(6) Connect the negative battery terminal.

⚠ CAUTION

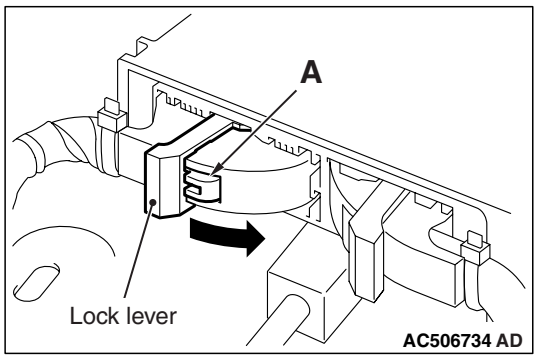
Always DTC B1B0E is set when checking DTC B1B09. This is because the second side terminal is isolated when checking it. DTC B1B0E is set but this is not a fault. In addition, always DTC B1B0A is set when checking DTC B1B0D because the first side terminal is isolated.

(7) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is the checked DTC set?

YES : Go to Step 4.

NO : Replace the passenger's (front) air bag module (Refer to P.52B-367). Then go to Step 6.



STEP 4. Check the passenger's (front) air bag module circuit. Measure the voltage at the SRS-ECU connector C-122.

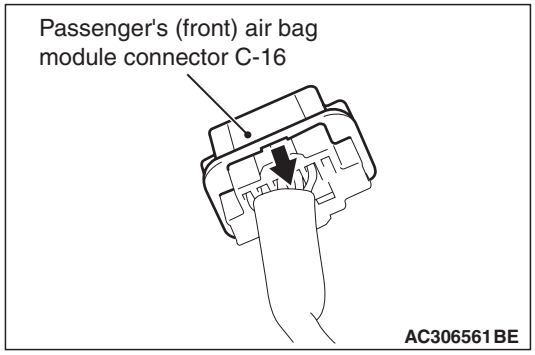
(1) Disconnect SRS-ECU connector C-122.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.

⚠ DANGER

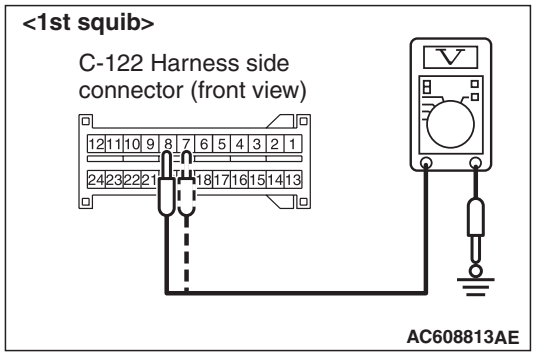
To prevent the air bag from deploying unintentionally, disconnect the passenger's (front) air bag module connector C-16 to short the squib circuit.

(3) Disconnect the passenger's (front) air bag module connector C-16.



(4) Disconnect the connector while sliding the C-16 wiring harness side connector to the direction of the arrow.

(5) Turn the ignition switch to the "ON" position.

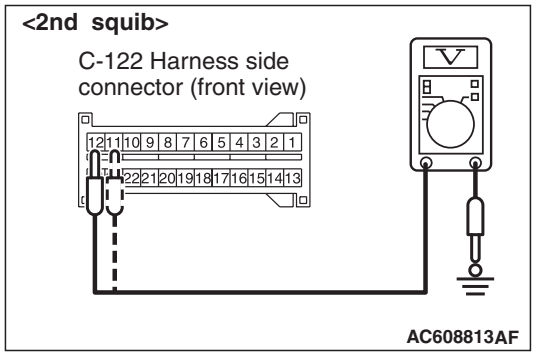


(6) Measure the voltage between C-122 harness side connector terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib> and body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B09 <1st squib> B1B0D <2nd squib> sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 6.

NO : Go to Step 5.



STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-122 (terminal No.7 and 8 <1st squib> or terminal No.11 and 12 <2nd squib>) and passenger's (front) air bag module connector C-16 (terminal No.2 and 1 <1st squib> terminal No.4 and 3 <2nd squib>).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.7 and 8 <1st squib> or terminal No.11 and 12 <2nd squib>) and passenger's (front) air bag module connector C-16 (terminal No.2 and 1 <1st squib> terminal No.4 and 3 <2nd squib>) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-122 and passenger's (front) air bag module connector C-16. Then go to Step 6.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

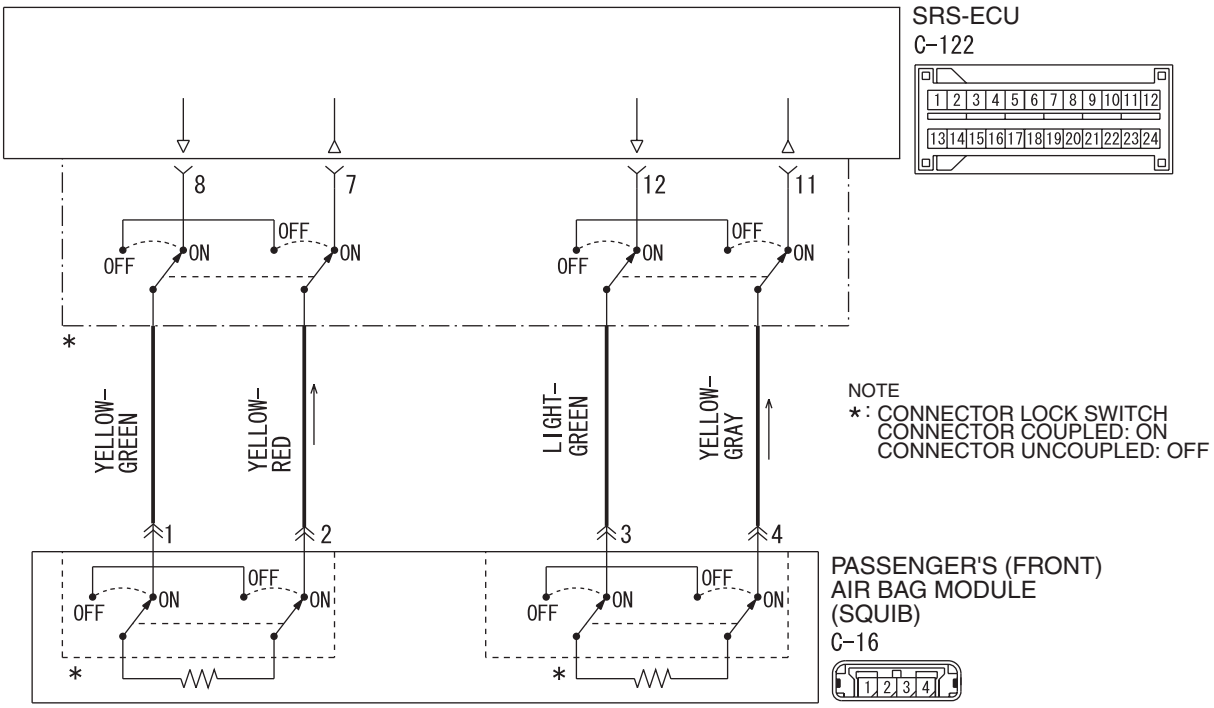
Q: Is DTC B1B09 <1st squib> B1B0D <2nd squib> set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1B0A: Passenger's (Front) Air Bag Module (1st squib) System (Squib Circuit Open)
DTC B1B0E: Passenger's (Front) Air Bag Module (2nd squib) System (Squib Circuit Open)

Passenger's (Front) Air Bag Module (Squib) Circuit



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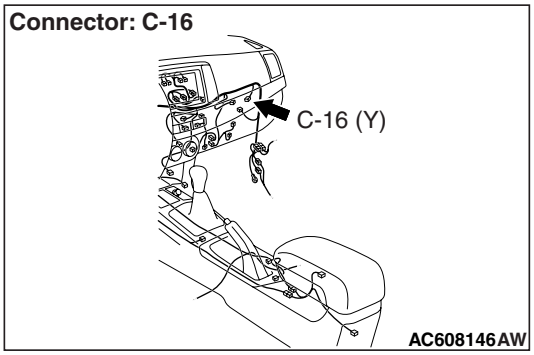
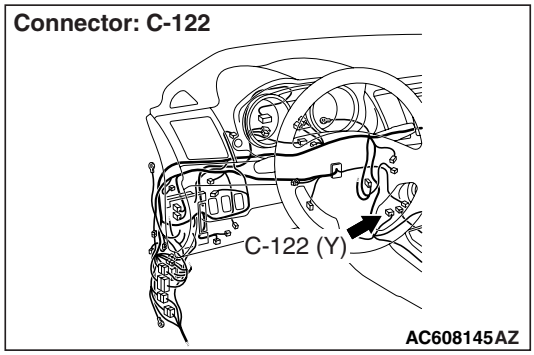




⚠ CAUTION

If DTC B1B0A <1st squib> or B1B0E <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's (front) air bag module (squib).

TROUBLESHOOTING HINTS

- Open circuit in the passenger's (front) air bag module (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

TSB Revision

DIAGNOSIS

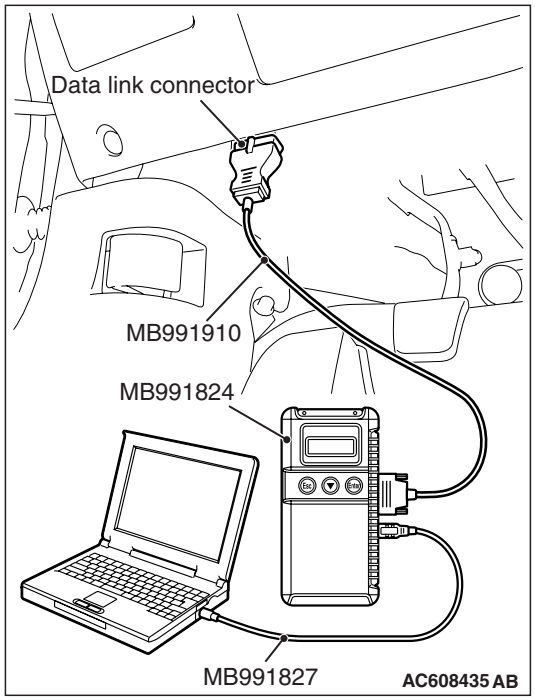
Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991817: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resister
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.



(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

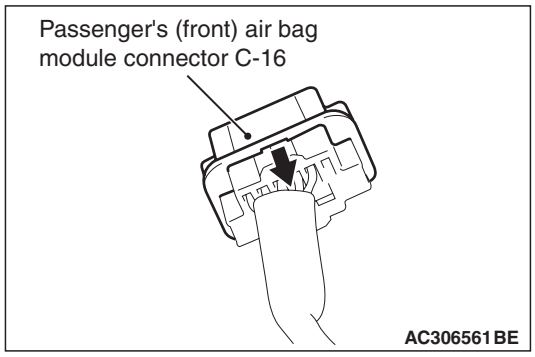
Q: Is the DTC set?

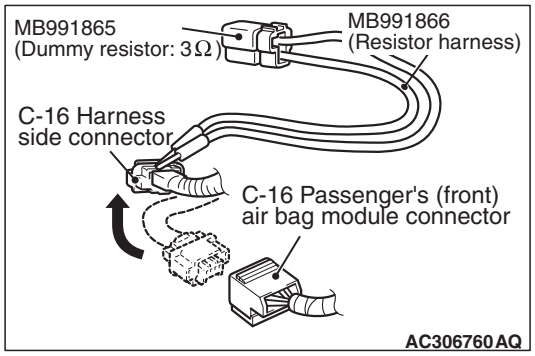
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

TSB Revision

STEP 3. Check the passenger's (front) air bag module.

(1) Disconnect the negative battery terminal.
(2) Disconnect the passenger's (front) air bag module connector C-16.
(3) Disconnect the connector while sliding the C-16 wiring harness side connector to the direction of the arrow.





(4) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(5) Insert special tool MB991866 into the harness side connector C-16 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.
(6) Connect the negative battery terminal.

⚠ CAUTION

Always DTC B1B0E is set when checking DTC B1B0A. This is because the second side terminal is isolated when checking it. DTC B1B0E is set but this is not a fault. In addition, always DTC B1B0A is set when checking DTC B1B0E because the first side terminal is isolated.

(7) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

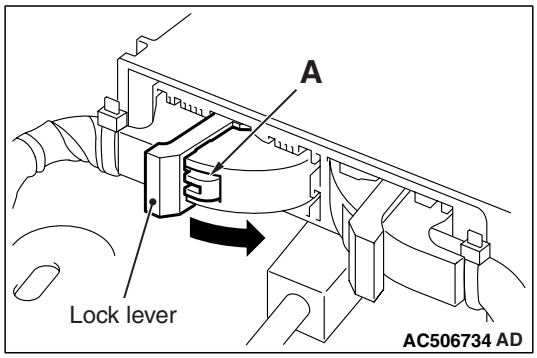
Q: Is the checked DTC set?

YES : Go to Step 4.
NO : Replace the passenger's air bag module (Refer to P.52B-367). Then go to Step 5.

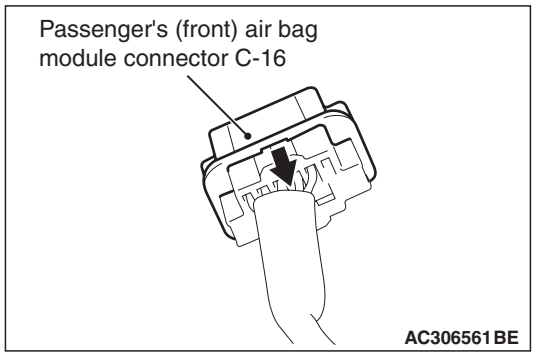
STEP 4. Check the harness for open circuit between SRS-ECU connector C-122 (terminal No.7 and 8 <1st squib> or terminal No.11 and 12 <2nd squib>) and the passenger's air bag module connector C-16 (terminal No.2 and 1 <1st squib> or terminal No.4 and 3 <2nd squib>).

(1) Disconnect SRS-ECU connector C-122.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.



(3) Disconnect the passenger's (front) air bag module connector C-16.

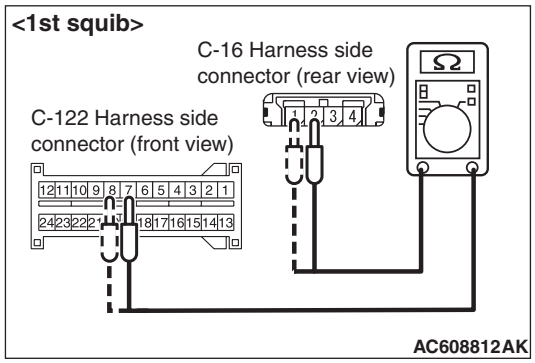


(4) Disconnect the connector while sliding the C-16 wiring harness side connector to the direction of the arrow.

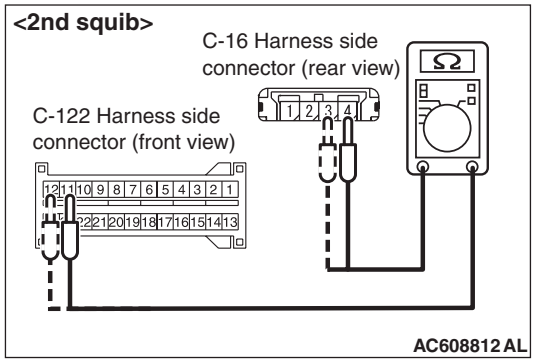
⚠ CAUTION

Do not insert a probe into the terminal from C-16 harness side connector front side directly as the connector contact pressure may be weakened.

(5) Check for continuity between the following terminals. It should be less than 2 ohms.



- SRS-ECU connector C-122 (terminal No.7) and the passenger's (front) air bag module connector C-16 (terminal No.2) <1st squib>
- SRS-ECU connector C-122 (terminal No.8) and the passenger's (front) air bag module connector C-16 (terminal No.1) <1st squib>



- SRS-ECU connector C-122 (terminal No.11) and the passenger's (front) air bag module connector C-16 (terminal No.4) <2nd squib>
- SRS-ECU connector C-122 (terminal No.12) and the passenger's (front) air bag module connector C-16 (terminal No.3) <2nd squib>

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B0A <1st squib> or B1B0E <2nd squib> set, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-122 and passenger's (front) air bag module connector C-16. Then go to Step 5.

TSB Revision

STEP 5. Recheck for diagnostic trouble code.

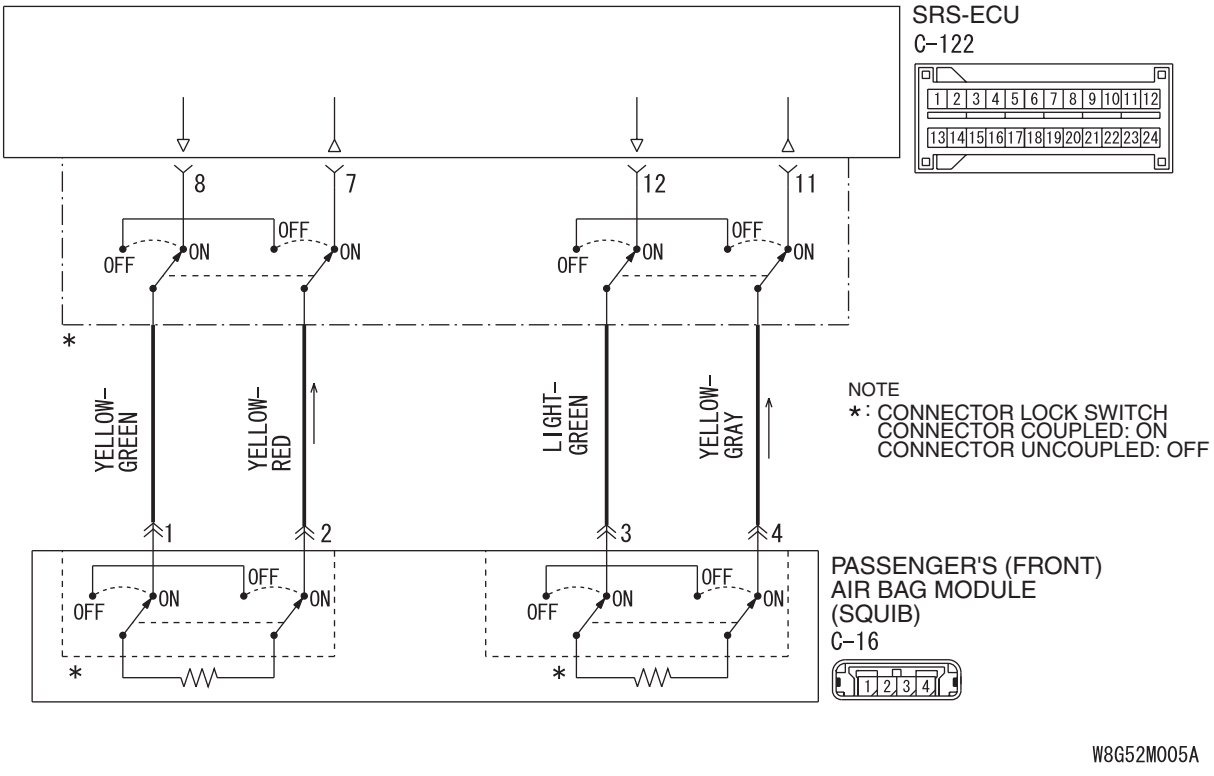
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

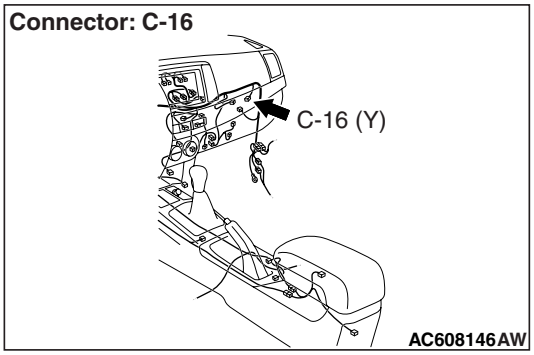
Q: Is DTC B1B0A <1st squib> or B1B0E <2nd squib> set?

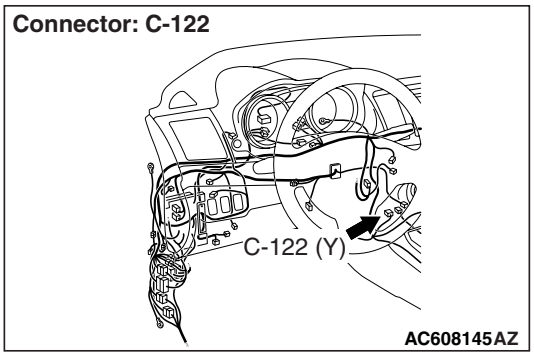
YES : Return to Step 1.
NO : The procedure is complete.

DTC B1B0B: Passenger's (Front) Air Bag Module (1st squib) System (Short Circuit Between Squib Circuit Terminals)
DTC B1B0F: Passenger's (Front) Air Bag Module (2nd squib) System (Short Circuit Between Squib Circuit Terminals)

Passenger's (Front) Air Bag Module (Squib) Circuit







⚠ CAUTION

If DTC B1B0B <1st squib> or B1B0F <2nd squib> is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the SRS air bag will inflate.
- The ignition signal is input to the air bag module to inflate the air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's (front) air bag module (squib).

TROUBLESHOOTING HINTS

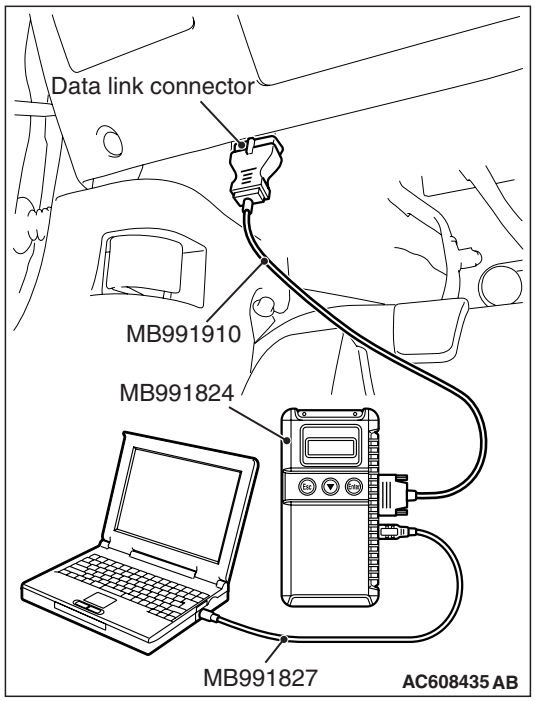
- Improper engaged connector or defective short spring*
- Short circuit between the passenger's (front) air bag module (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-16 or C-122 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resister
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

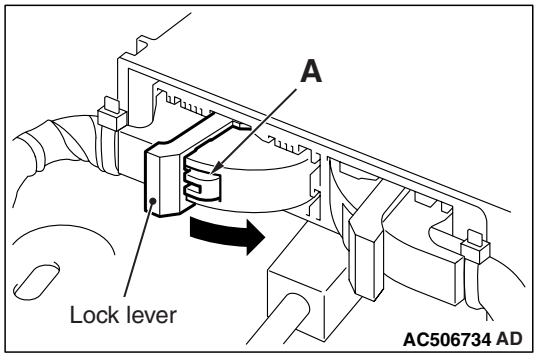
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

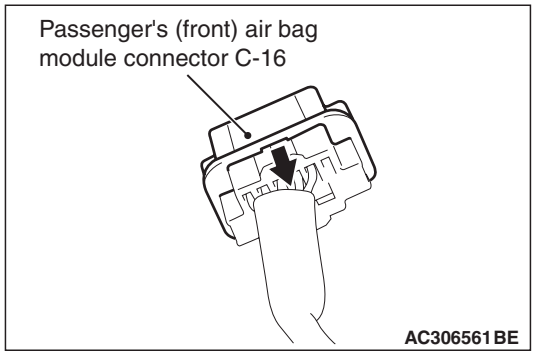
Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check SRS-ECU connector C-122 and passenger's (front) air bag module connector C-16.

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-122 and C-16 then reconnect them.
(3) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.





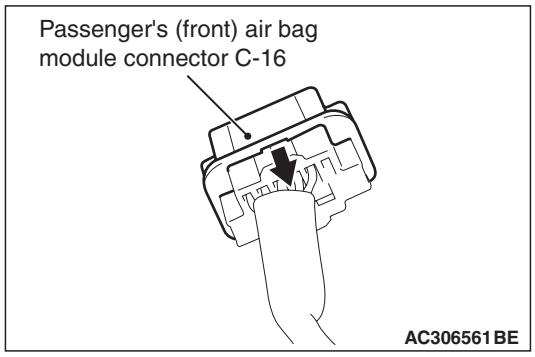
(4) After disconnecting the connector while sliding the C-12 harness side connector to the direction of the arrow, connect the connector again.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

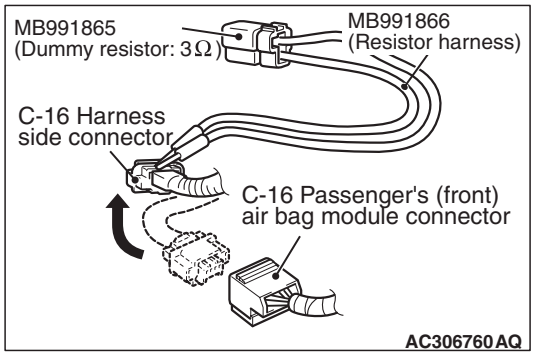
Q: Is DTC B1B0B <1st squib> or B1B0F <2nd squib> set?

YES : Go to Step 4.
NO : The procedure is complete. It is assumed that DTC B1B0B <1st squib> or B1B0F <2nd squib> set as connector C-122 or C-16 was engaged improperly.

STEP 4. Check the passenger's (front) air bag module.

(1) Disconnect the negative battery terminal.
(2) Disconnect the passenger's (front) air bag module connector C-16.
(3) Disconnect the connector while sliding the C-16 wiring harness side connector to the direction of the arrow.





(4) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(5) Insert special tool MB991866 into the harness side connector C-16 (terminal No.1 and 2 <1st squib> or terminal No.3 and 4 <2nd squib>) by backprobing.
(6) Connect the negative battery terminal.

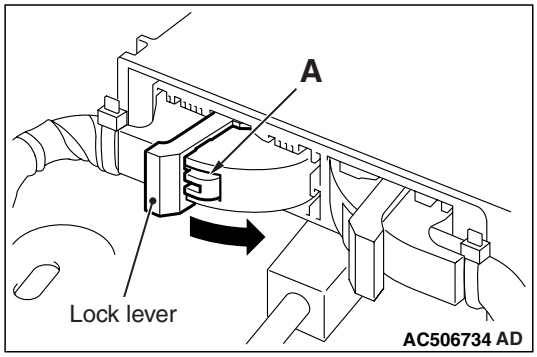
⚠ CAUTION

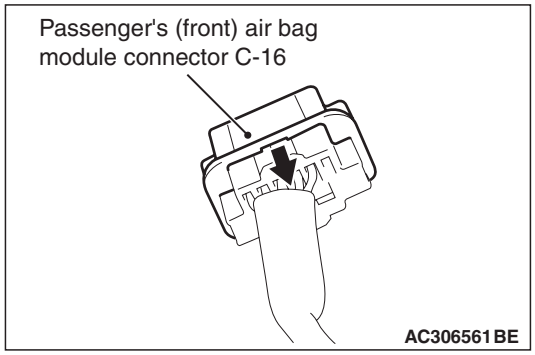
Always DTC B1B0E is set when checking DTC B1B0B. This is because the second side terminal is isolated when checking it. DTC B1B0E is set but this is not a fault. In addition, always DTC B1B0A is set when checking DTC B1B0F because the first side terminal is isolated.

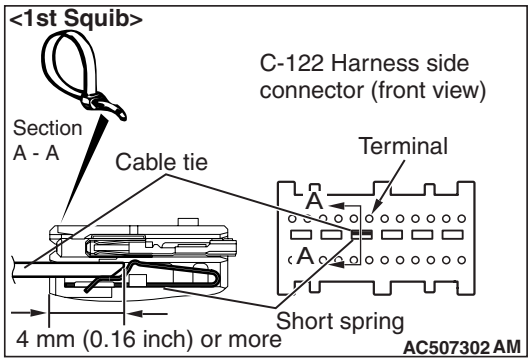
(7) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

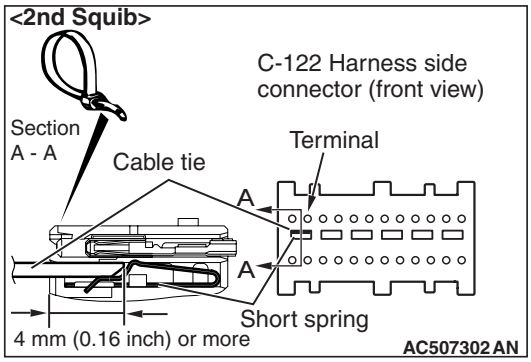
Q: Is the checked DTC set?

YES : Go to Step 5.
NO : Replace the passenger's (front) air bag module (Refer to P.52B-367). Then go to Step 7.









STEP 5. Check the passenger's (front) air bag module circuit at SRS-ECU connector C-122.

(1) Disconnect SRS-ECU connector C-122.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.

⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the passenger's (front) air bag module connector C-16 to short the squib circuit.

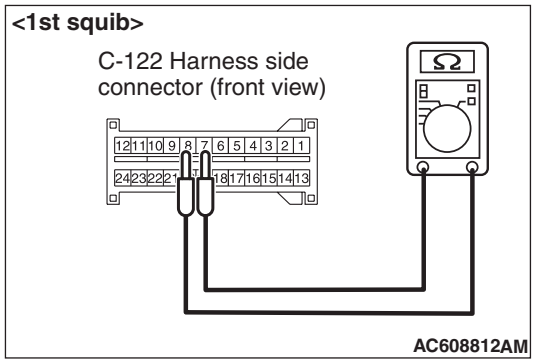
(3) Disconnect the passenger's (front) air bag module connector C-16.

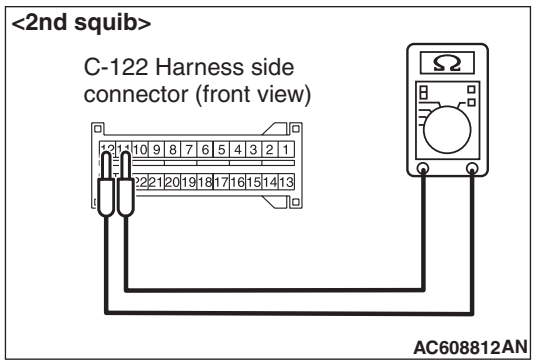
(4) Disconnect the connector while sliding the C-16 wiring harness side connector to the direction of the arrow.

⚠ **CAUTION**

Insert an insulator such as a cable tie to a depth of 4 mm (0.16 inch) or more, otherwise the short spring will not be released.

(5) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib>, and the short spring to release the short spring.





(6) Check for continuity between C-122 harness side connector terminals 7 and 8 <1st squib> or 11 and 12 <2nd squib>. It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 6.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B0B <1st squib> or B1B0F <2nd squib> set, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 7.

STEP 6. Check the harness for short circuit between SRS-ECU connector C-122 (terminal No.7 and 8 <1st squib> or terminal No.11 and 12 <2nd squib>) and passenger's (front) air bag module connector C-16 (terminal No.2 and 1 <1st squib> terminal No.4 and 3 <2nd squib>).

Q: Are harness wires between SRS-ECU connector C-122 (terminal No.7 and 8 <1st squib> or terminal No.11 and 12 <2nd squib>) and passenger's (front) air bag module connector C-16 (terminal No.2 and 1 <1st squib> terminal No.4 and 3 <2nd squib>) in good condition?

YES : Go to Step 7.

NO : Replace the harness wires between SRS-ECU connector C-122 and passenger’s (front) air bag module connector C-16. Then go to Step 7.

STEP 7. Check for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.

(2) Turn the ignition switch to the "ON" position.

(3) Check if the DTC is set.

(4) Turn the ignition switch to the "LOCK" (OFF) position.

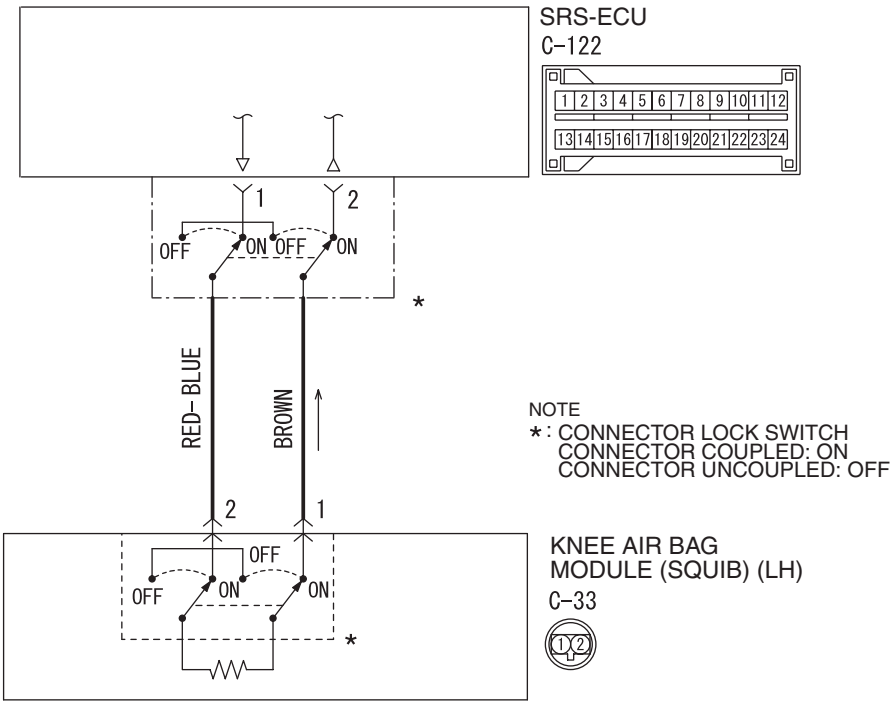
Q: Is DTC B1B0B <1st squib> or B1B0F <2nd squib> set?

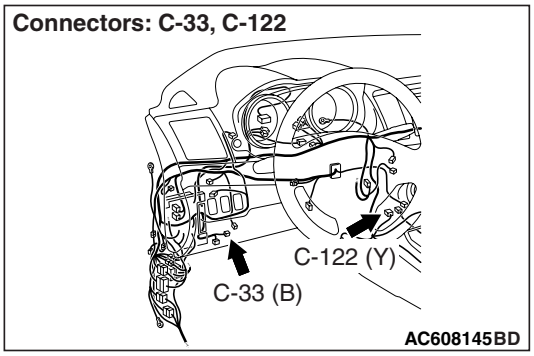
YES : Return to Step 1.

NO : The procedure is complete.

DTC B1B10: Driver's Knee Air Bag (Squib) System (Shorted To Squib Circuit Ground)

Knee Air Bag Module (Squib) Circuit





⚠ CAUTION

If DTC B1B10 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the knee air bag module will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the knee air bag module (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the knee air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

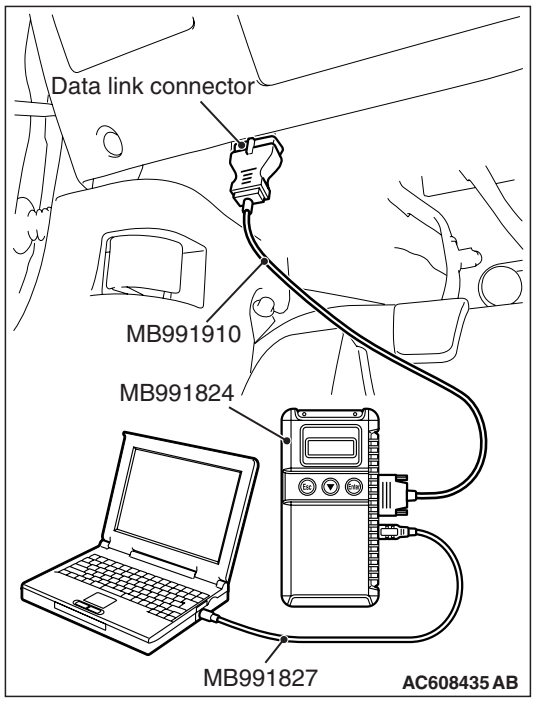
Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.



(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

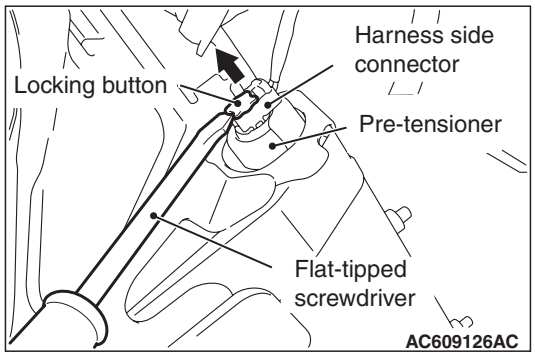
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

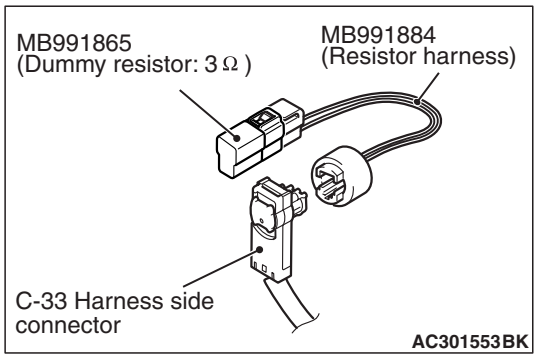
Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).



STEP 3. Check the Knee air bag module.

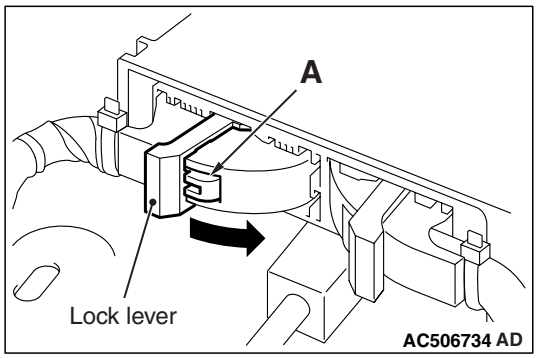
(1) Disconnect the negative battery terminal.
(2) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the C-33 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

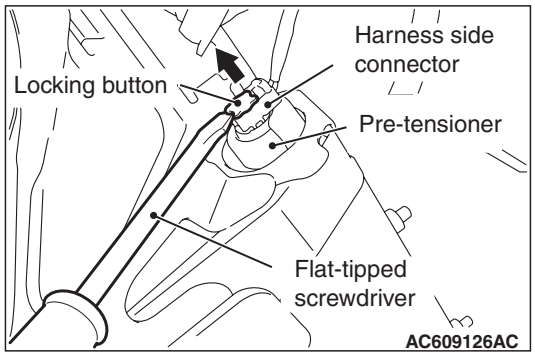
Q: Is DTC B1B10 set?

YES : Go to Step 4.
NO : Replace the driver's knee air bag module (Refer to P.52B-378). Then go to Step 6.

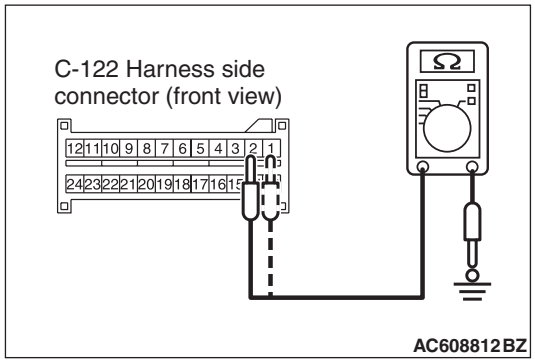


STEP 4. Check the knee air bag module circuit. Measure the resistance at the SRS-ECU connector C-122.

(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.



(2) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(3) Check for continuity between C-122 harness side connector terminals 1, 2 and body ground.
It should be an open circuit.

Q: Does continuity exist?

YES : Go to Step 5.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B10 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 6.

STEP 5. Check harness wires for short circuit to ground between SRS-ECU connector C-122 (terminal No.1 and 2) and knee air bag module connector C-33 (terminal No.2 and 1).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.1 and 2) and knee air bag module connector C-33 (terminal No.2 and 1) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-122 and knee air bag module connector C-33. Then go to Step 6.

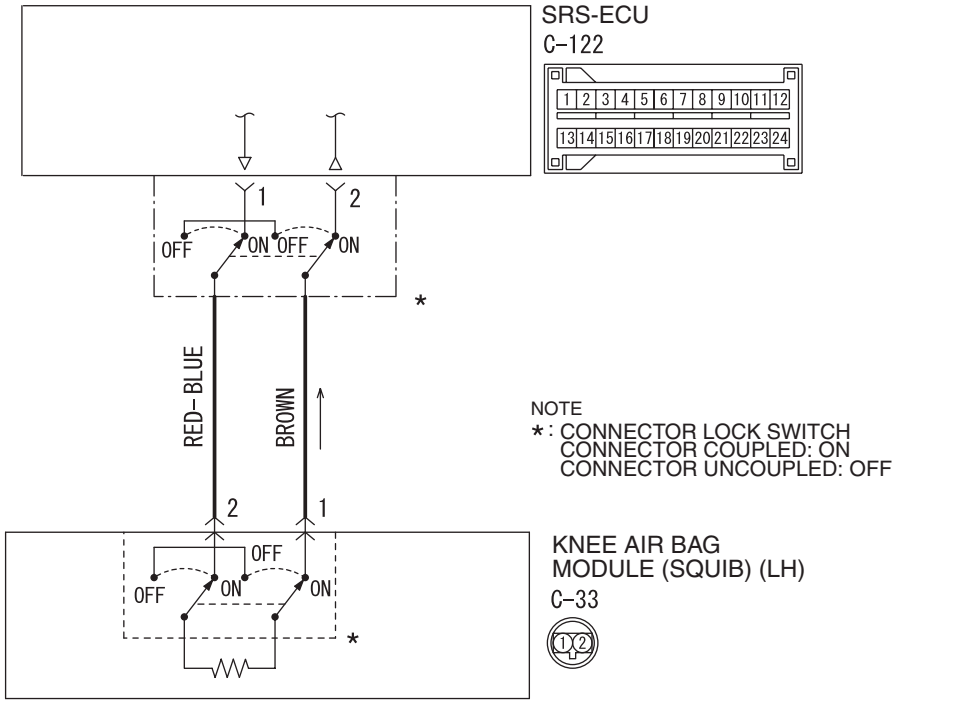
STEP 6. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B10 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1B11: Driver's Knee Air Bag (Squib) System (Shorted To Squib Circuit Power Supply)

Knee Air Bag Module (Squib) Circuit



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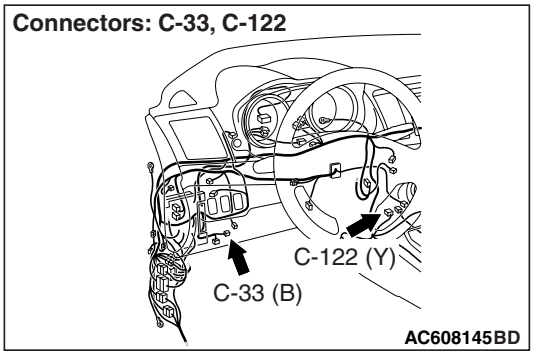


⚠ CAUTION
If DTC B1B11 is set in the SRS-ECU, always diagnose the CAN main bus line.

TSB Revision

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the knee air bag module will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the knee air bag module (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to power supply in the knee air bag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

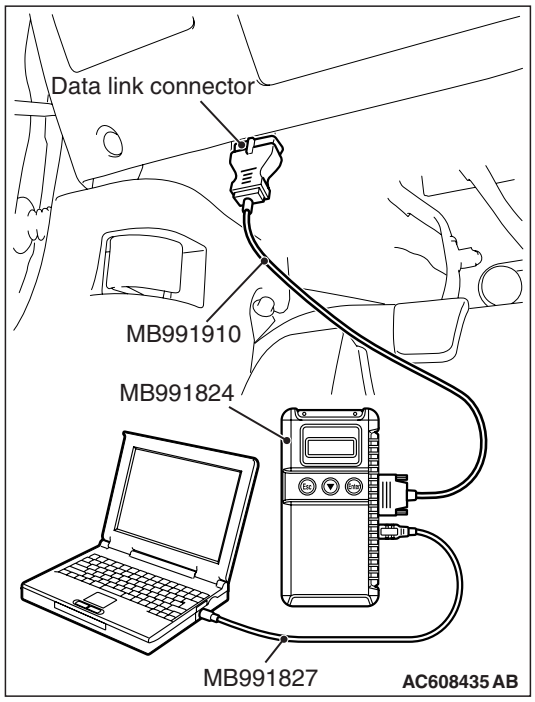
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

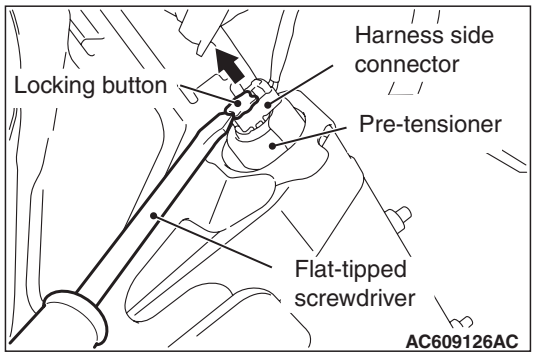
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

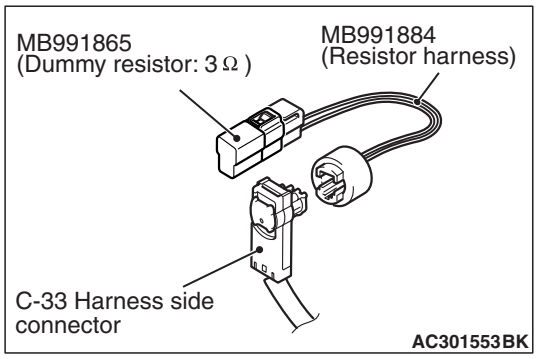
Q: Is the DTC set?

YES : Go to Step 3.
NO : Go to Step 6.

STEP 3. Check the knee air bag module.

(1) Disconnect the negative battery terminal.
(2) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



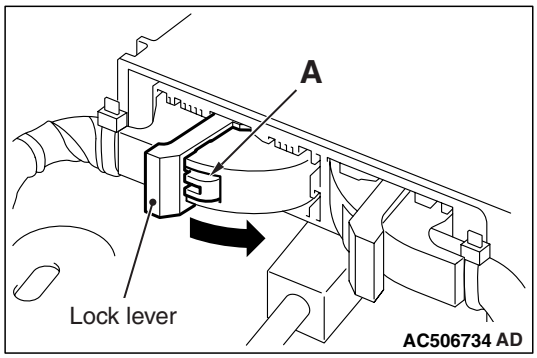


(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the C-33 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

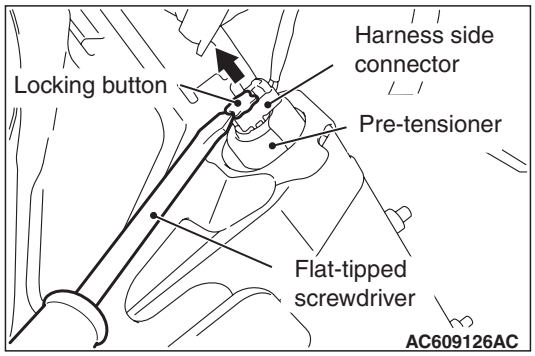
Q: Is DTC B1B11 set?

YES : Go to Step 4.
NO : Replace the driver's knee air bag module (Refer to P.52B-378). Then go to Step 6.

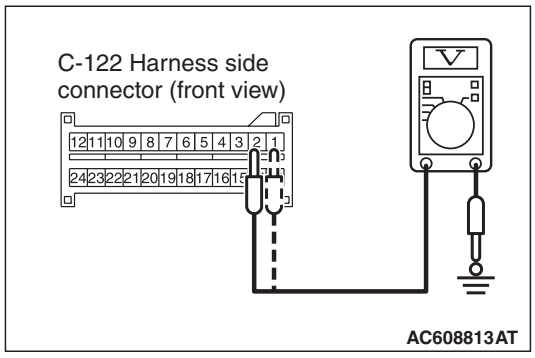
STEP 4. Check the knee air bag module circuit. Measure the voltage at the SRS-ECU connector C-122.



(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.



(2) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Turn the ignition switch to the "ON" position.



⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Measure the voltage between C-122 harness side connector terminals 1, 2 and body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage 0 volt?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B11 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 6.

NO : Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-122 (terminal No.1 and 2) and knee air bag module connector C-33 (terminal No.2 and 1).

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.1 and 2) and knee air bag module connector C-33 (terminal No.2 and 1) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-122 and knee air bag module connector C-33. Then go to Step 6.

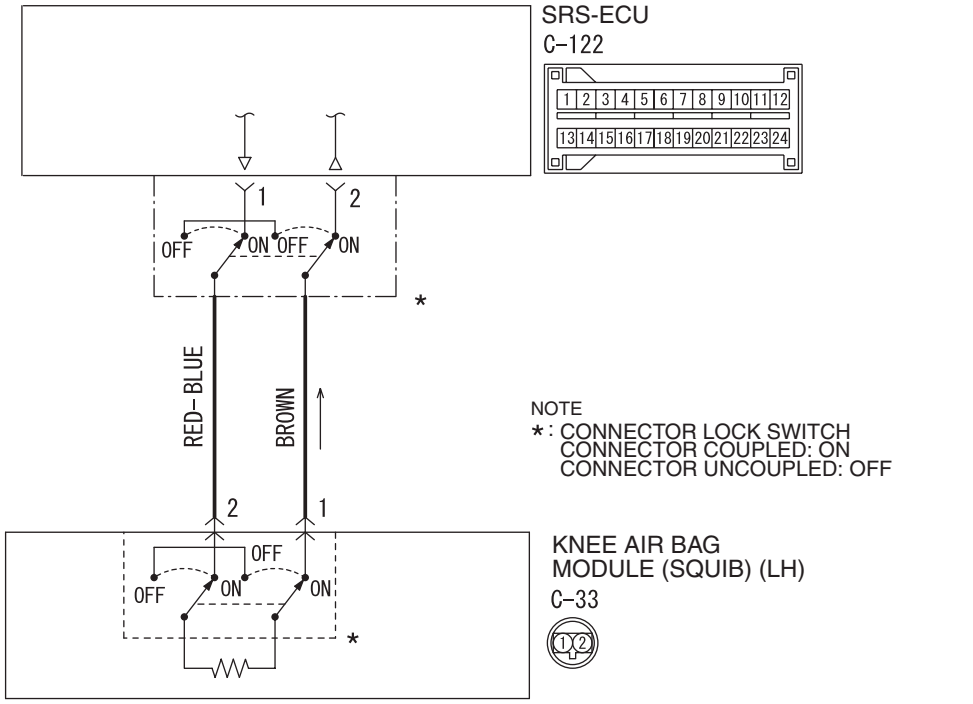
STEP 6. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B11 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1B12: Driver's Knee Air Bag (Squib) System (Squib Circuit Open)

Knee Air Bag Module (Squib) Circuit



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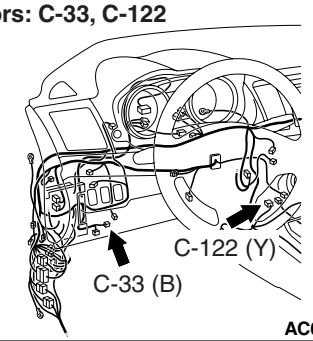
Connectors: C-33, C-122



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⚠ CAUTION
If DTC B1B12 is set in the SRS-ECU, always diagnose the CAN main bus line.

TSB Revision

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the knee air bag module will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the knee air bag module (squib).

TROUBLESHOOTING HITS

- Improper connector contact
- Open circuit in the knee air bag module (squib) circuit
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

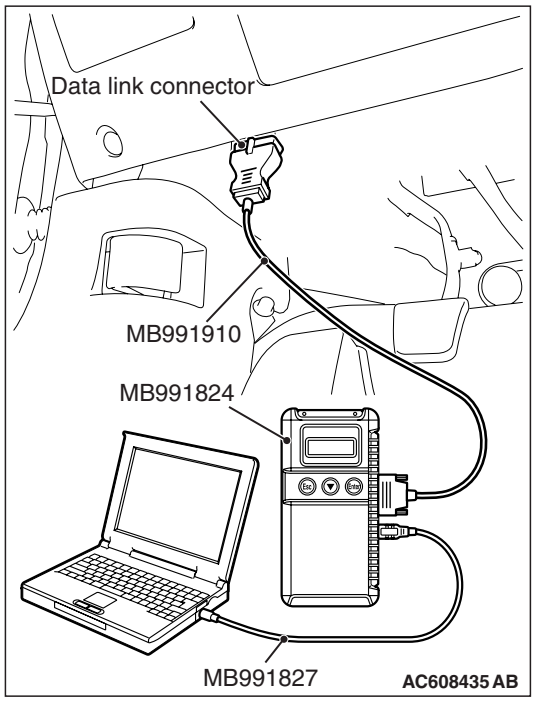
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

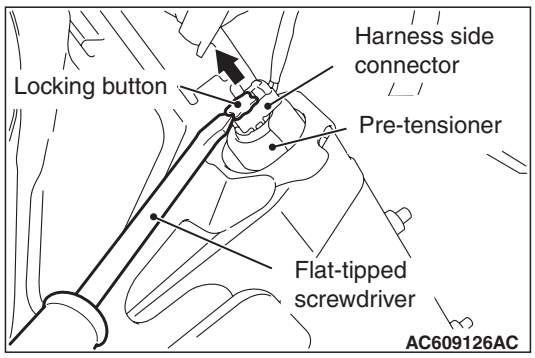
Q: Is the DTC set?

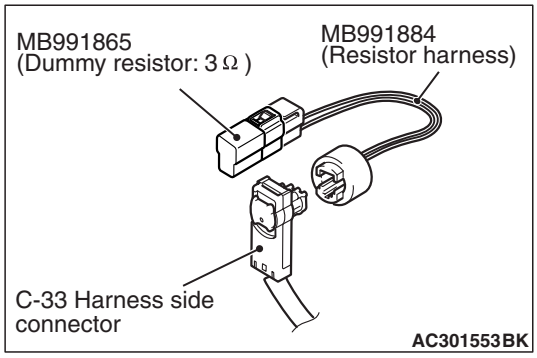
YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check the knee air bag module.

(1) Disconnect the negative battery terminal.
(2) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





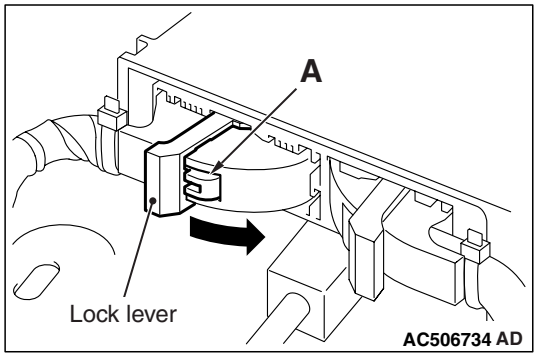
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the C-33 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC B1B12 set?

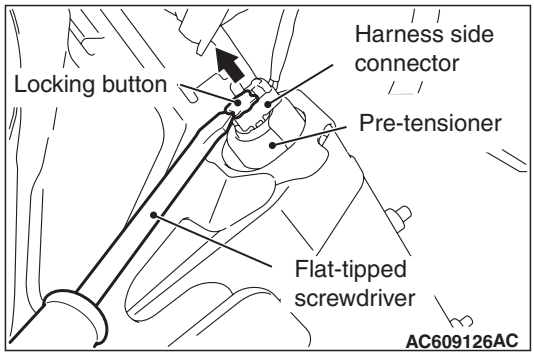
YES : Go to Step 4.

NO : Replace the driver's knee air bag module (Refer to P.52B-378). Then go to Step 5.

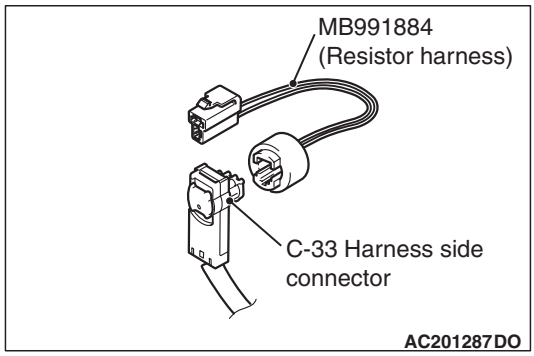
STEP 4. Check the harness for open circuit between SRS-ECU connector C-122 (terminal No.1 and 2) and the knee air bag module C-33 (terminal No.2 and 1).



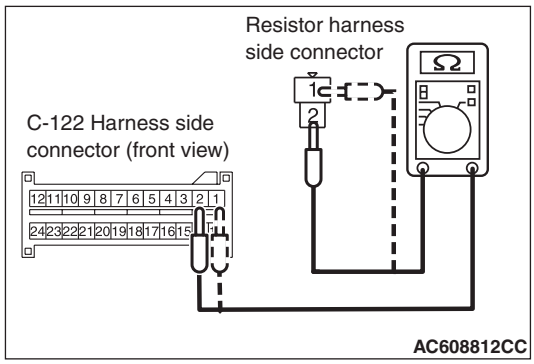
(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.



(2) Disconnect SRS-ECU connector C-122 and knee air bag module connector C-33, and measure at the wiring harness side. For connector C-33, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(3) Connect C-33 harness side connector to special tool MB991884.


Resistor harness side connector
C-122 Harness side connector (front view)
12 11 10 9 8 7 6 5 4 3 2 1
24 23 22 21 20 19 18 17 16 15 14 13
AC608812CC

⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-122 (terminal No.1) and the special tool (terminal No.1)
- SRS-ECU connector C-122 (terminal No.2) and the special tool (terminal No.2)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and recheck if any DTC set. If DTC B1B12 set, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 5 .

NO : Replace harness wires between SRS-ECU connector C-122 and knee air bag module connector C-33. Then go to Step 5.

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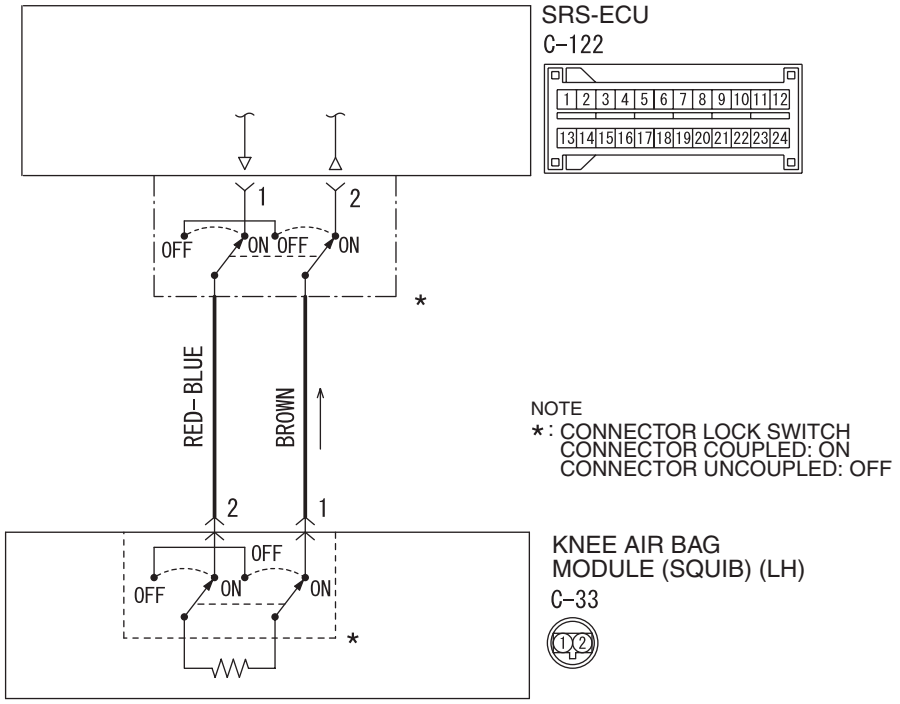
STEP 5. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B12 set?

YES : Return to Step 1.
NO : The procedure is complete.

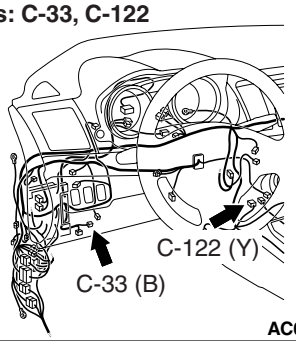
DTC B1B13: Driver's Knee Air Bag (Squib) System (Short Circuit Between Squib Circuit Terminals)

Knee Air Bag Module (Squib) Circuit



W8G52M018A

Connectors: C-33, C-122



AC608145BD

⚠ CAUTION
If DTC B1B13 is set in the SRS-ECU, always diagnose the CAN main bus line.

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CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the knee air bag module will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the knee air bag module (squib).

TROUBLESHOOTING HITS

- Improper engaged connector or defective short spring*
- Short circuit between the knee air bag module (squib) circuit terminals
- Damaged connector(s)

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the knee air bag module from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-122 or C-33 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

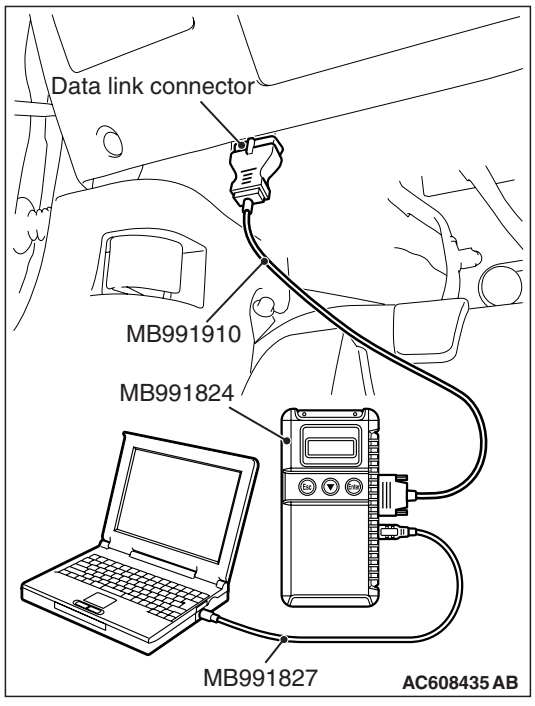
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2 .
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

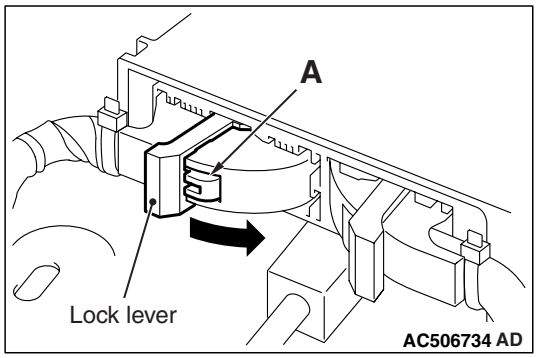
Q: Is the DTC set?

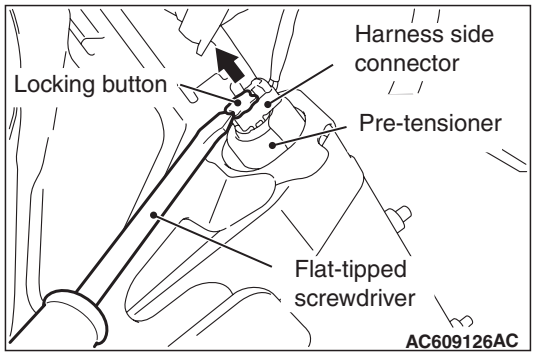
YES : Go to Step 3 .

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check SRS-ECU connector C-122 and Knee air bag module connector C-33.

(1) Disconnect the negative battery terminal.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.



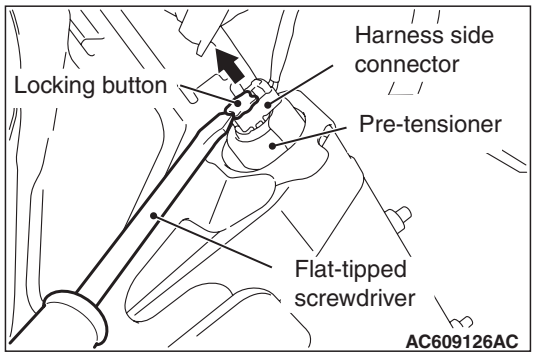


(3) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(4) Connector the negative battery terminal.
(5) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1B13 set?

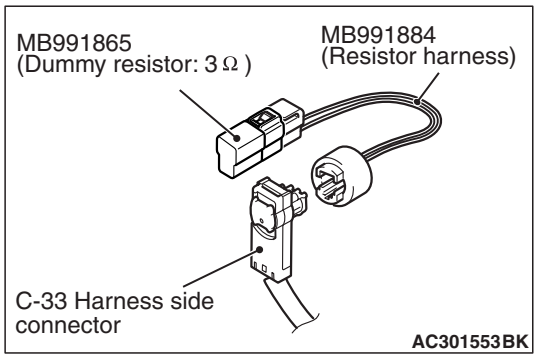
YES : Go to Step 4.

NO : The procedure is complete. It is assumed that DTC B1B13 set because connector C-122 or C-33 was engaged improperly.



STEP 4. Check the knee air bag module.

(1) Disconnect the negative battery terminal.
(2) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

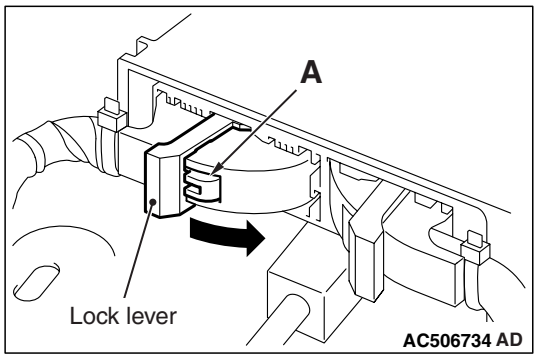


(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the C-33 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC B1C36 set?

YES : Go to Step 5.
NO : Replace the driver's knee air bag module (Refer to P.52B-378. Then go to Step 7.

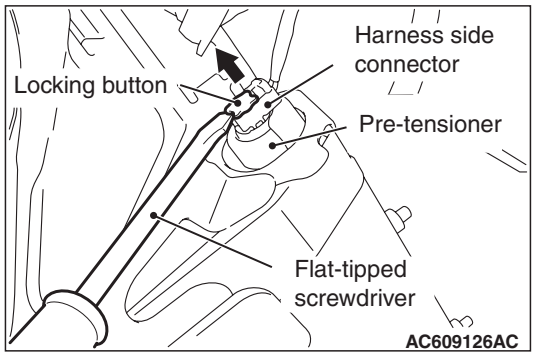
STEP 5. Check the knee air bag module circuit. Measure the resistance at the SRS-ECU connector C-122.



(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-122 SRS-ECU connector.

⚠ ***DANGER***

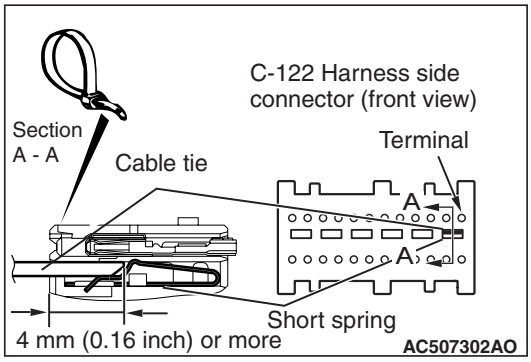
To prevent the knee air bag module from deploying unintentionally, disconnect the knee air bag module connector C-33 to short the squib circuit.



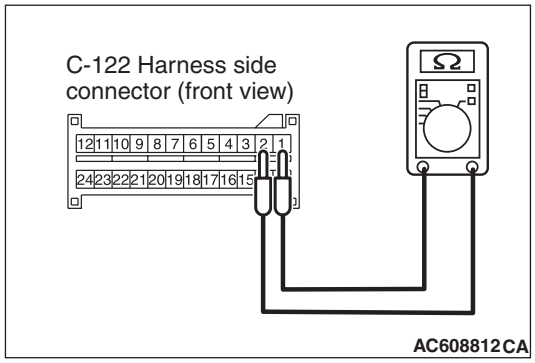
(2) Disconnect knee air bag module connector C-33. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

⚠ **CAUTION**

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.



(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.



⚠ **CAUTION**

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Check for continuity between C-122 harness side connector terminals 1 and 2.
It should be an open circuit.

Q: Does continuity exist?

YES : Go to Step 6.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B13 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 7.

STEP 6. Check the harness for short circuit between SRS-ECU connector C-122 (terminal No.35 and 36) and knee air bag module connector C-33 (terminal No.2 and 1).

Q: Are harness wires between SRS-ECU connector C-122 (terminal No.1 and 2) and knee air bag module connector C-33 (terminal No.2 and 1) in good condition?

YES : Go to Step 7.

NO : Replace the harness wires between SRS-ECU connector C-122 and knee air bag module connector C-33. Then go to Step 7.

STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

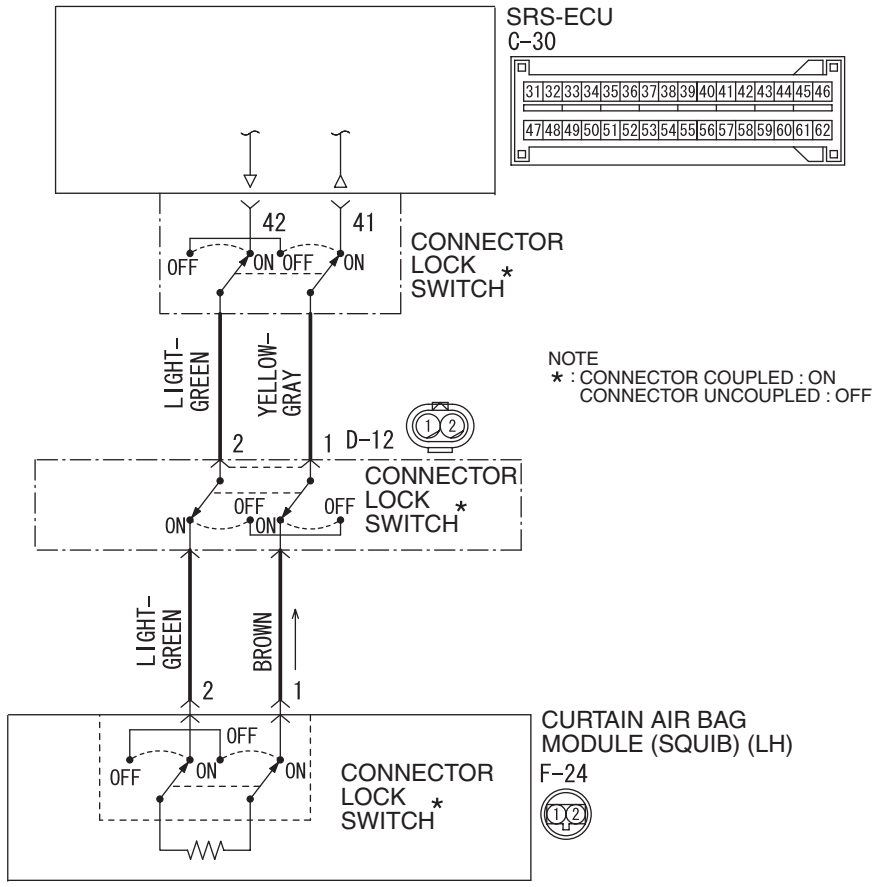
Q: Is DTC B1C36 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1B18: Curtain Air Bag Module (LH) (Squib) System (Shorted to Squib Circuit Ground)

Curtain Air Bag Module (Squib) (LH) Circuit



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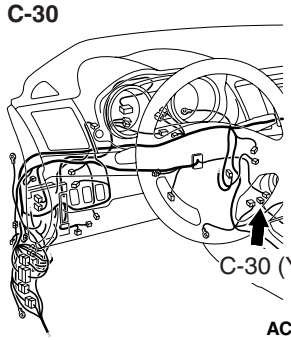
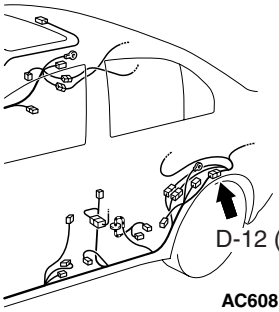
Connector: C-30



AC608145BA

Connector: D-12



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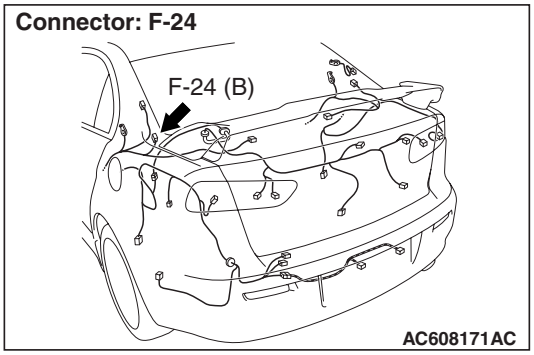


⚠ CAUTION
If DTC B1B18 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the curtain air bag module (LH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (LH) (squib).

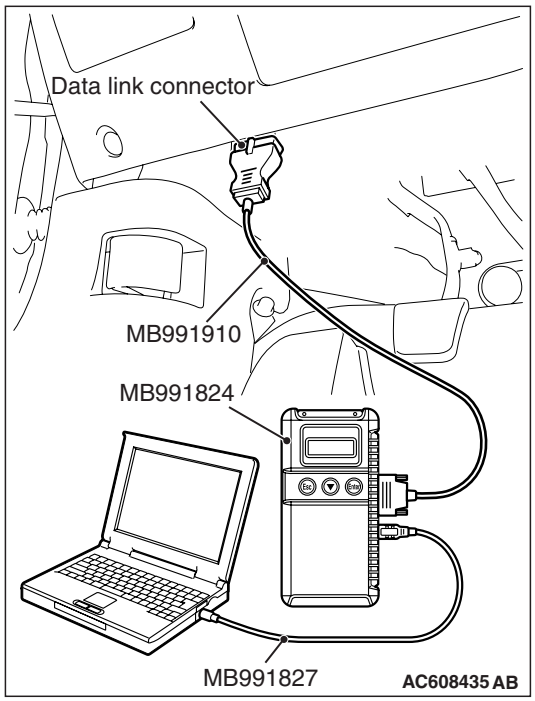
TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the curtain air bag module (LH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

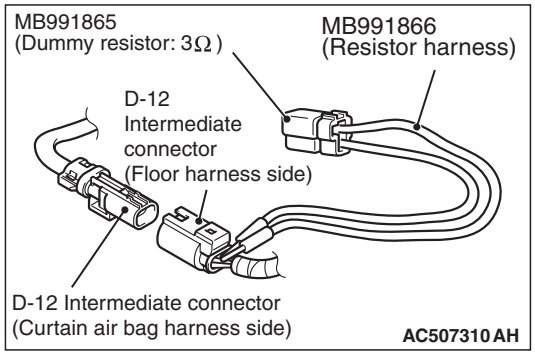
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunctions P.00-13).



STEP 3. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-12 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

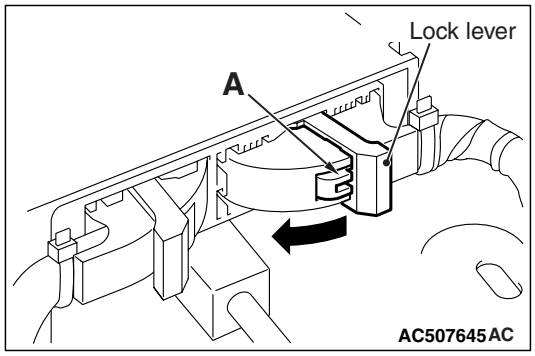
Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-12 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
(7) Disconnect the negative battery terminal.

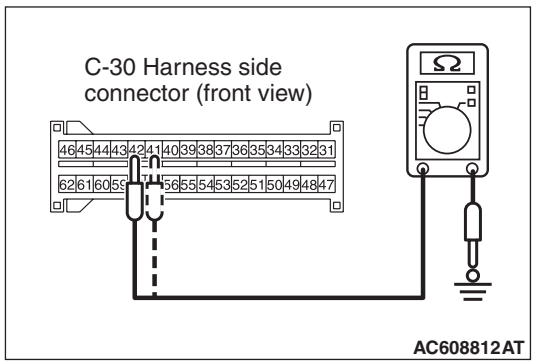
Q: Is DTC B1B18 set?

YES : Go to Step 4.
NO : Go to Step 5.

STEP 4. Resistance measurement at the C-30 SRS-ECU connector.



(1) Disconnect the negative battery terminal.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.
(3) Disconnect the D-12 intermediate connector (connection between curtain air bag harness and floor harness).



(4) Check for continuity between C-30 wiring harness side connector terminal No. 41, 42 and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Repair the wiring harness.
NO : Go to Step 6.

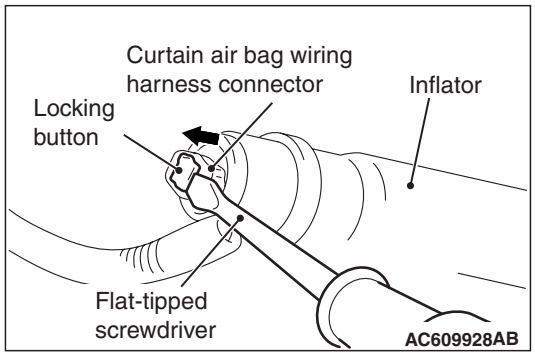
STEP 5. Resistance measurement at the D-12 intermediate connector.

(1) Disconnect the negative battery terminal.

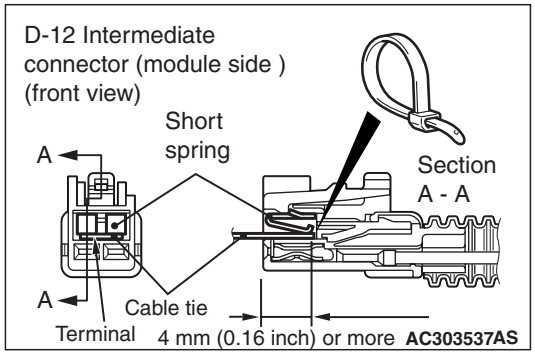
⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector F-24 to short the squib circuit.

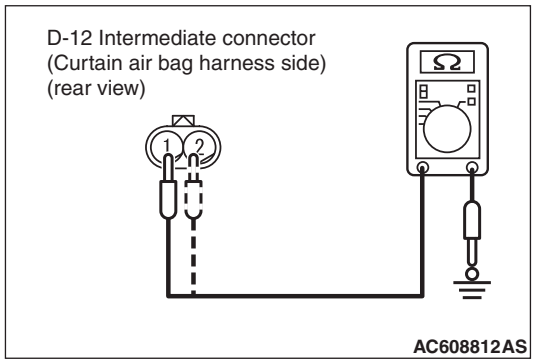
(2) Disconnect curtain air bag module (LH) F-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(3) Disconnect the D-12 intermediate connector (connection between curtain air bag harness and floor harness).



(4) Because the short spring is installed to the D-12 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.



⚠ **CAUTION**

Do not insert a probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(5) Check for continuity between the D-12 intermediate connector (module side) terminal No. 1, 2 and the body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Repair the wiring harness.

NO : Replace the curtain air bag module (squib) (Refer to P.52B-385).

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B18 set?

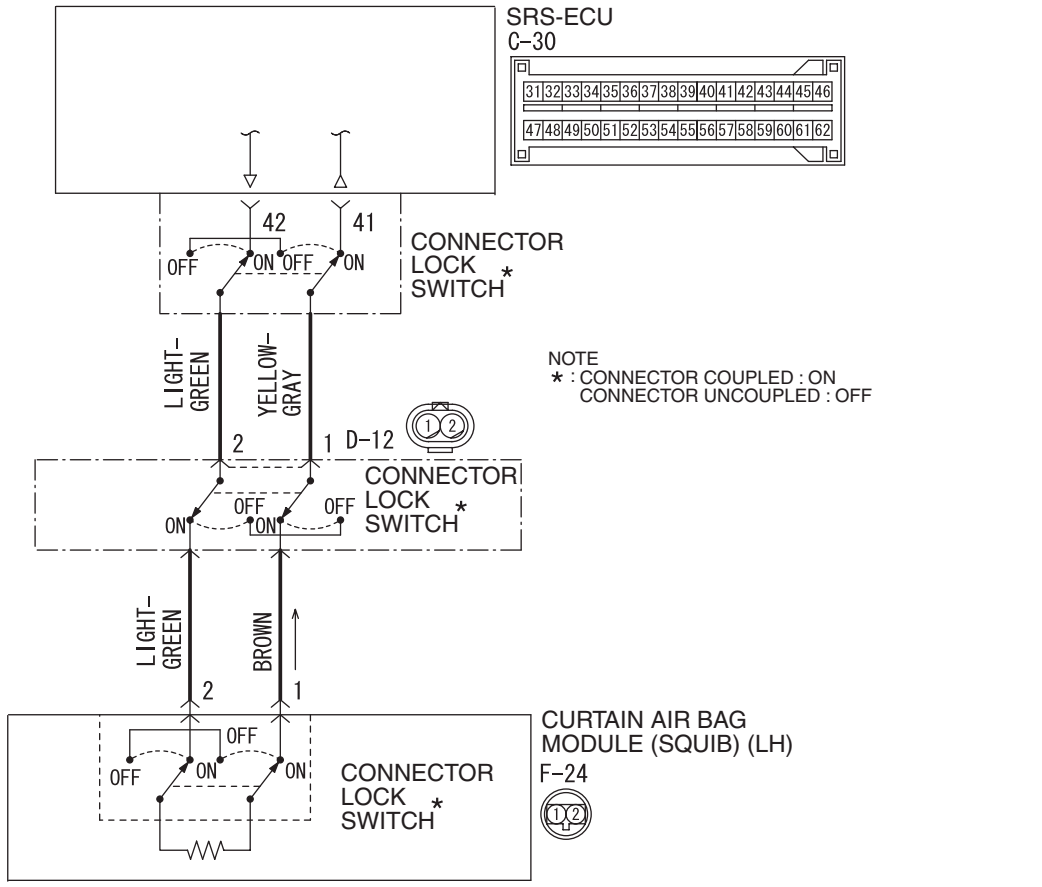
YES : Replace SRS-ECU (Refer to P.52B-364).

NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunction P.00-13).

TSB Revision

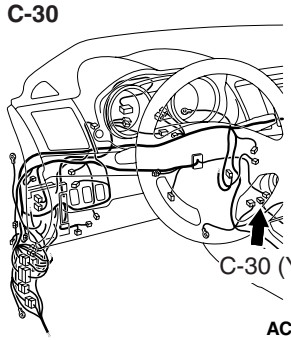
DTC B1B19: Curtain Air bag Module (LH) (Squib) System (Shorted to Squib Circuit Power Supply)

Curtain Air Bag Module (Squib) (LH) Circuit



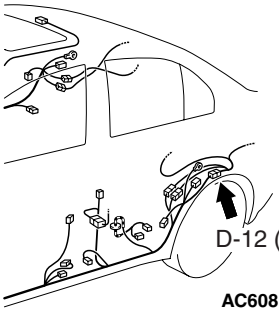
W8G52M007A

Connector: C-30



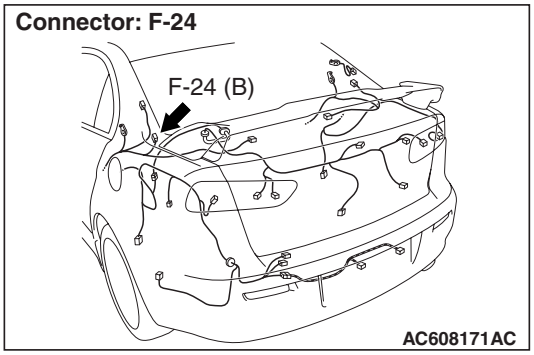
AC608145BA

Connector: D-12



AC608166AE

TSB Revision



⚠ CAUTION
If DTC B1B19 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the curtain air bag module (LH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (LH) (squib).

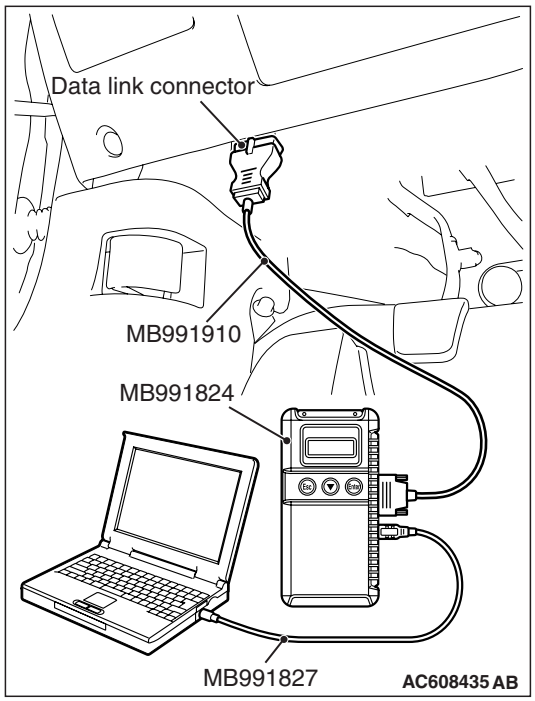
TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the power supply in the curtain air bag module (LH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

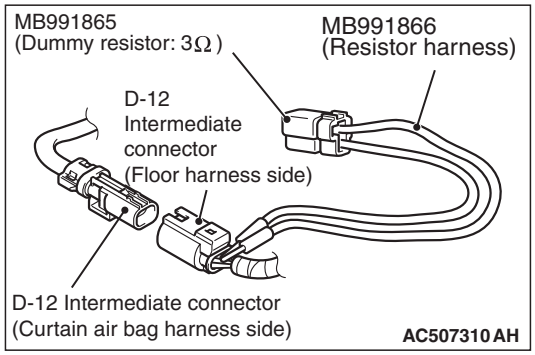
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunctions P.00-13).

STEP 3. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-12 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.



⚠ CAUTION

Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

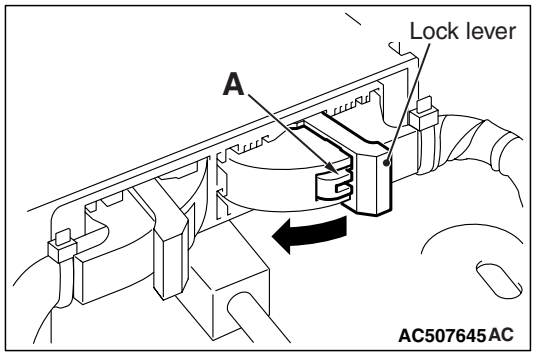
(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-12 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
(7) Disconnect the negative battery terminal.

Q: Is DTC B1B19 set?

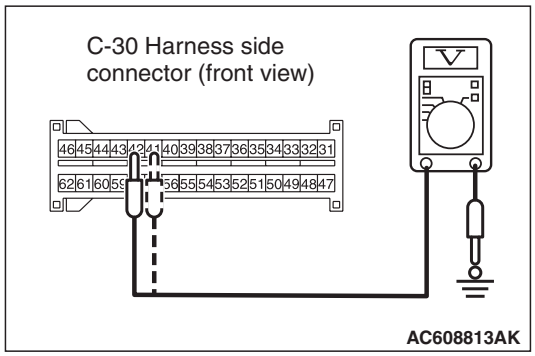
YES : Go to Step 4.
NO : Go to Step 5.

STEP 4. Voltage measurement at the C-30 SRS-ECU connector.

(1) Disconnect the negative battery terminal.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.
(3) Disconnect the D-12 intermediate connector (connection between curtain air bag harness and floor harness).
(4) Connect the negative battery terminal.
(5) Ignition switch: ON



(6) Measure the voltage between the C-30 wiring harness side connector terminal No. 41, 42 and body ground.
Voltage should measure 0 volt



Q: Is the measured 0 volt?

YES : Go to Step 6.
NO : Repair the wiring harness.

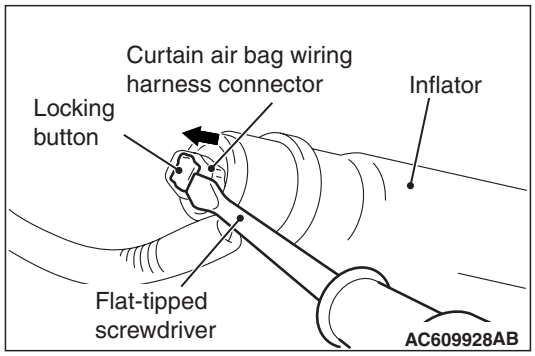
STEP 5. Voltage measurement at the D-12 intermediate connector.

(1) Disconnect the negative battery terminal.

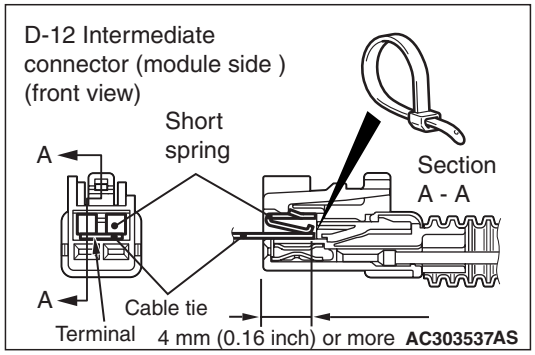
⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector F-24 to short the squib circuit.

(2) Disconnect curtain air bag module (LH) F-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



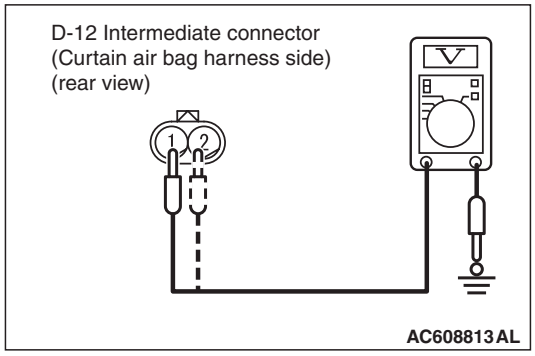
(3) Disconnect the D-12 intermediate connector (connection between curtain air bag harness and floor harness).



(4) Because the short spring is installed to the D-12 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.

(5) Connect the negative battery terminal.

(6) Ignition switch: ON



⚠ **CAUTION**

Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(7) Check for continuity between the D-12 intermediate connector (curtain air bag harness side) terminal No. 1, 2 and the body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage 0 volt?

YES : Replace the curtain air bag module (squib) (Refer to P.52B-385).

NO : Repair the wiring harness.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.

(2) Turn the ignition switch to the "ON" position.

(3) Check if the DTC is set.

(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B19 set?

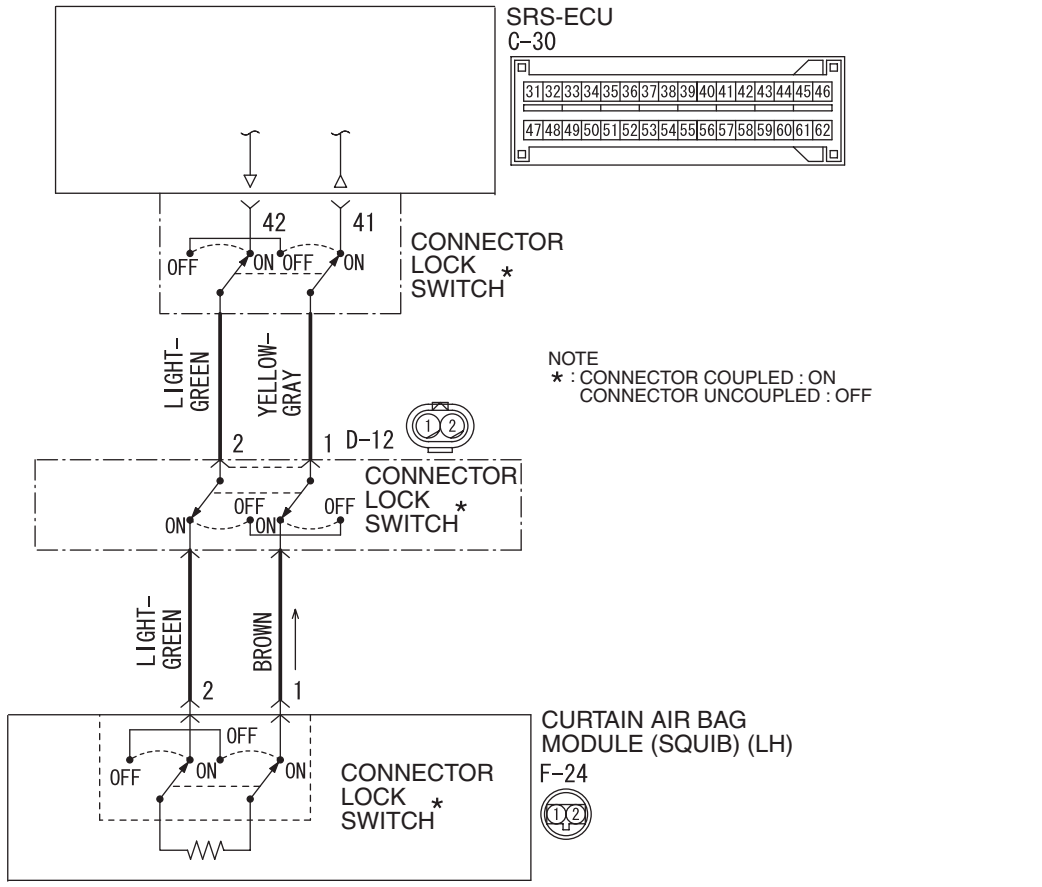
YES : Replace SRS-ECU (Refer to P.52B-364).

NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunction P.00-13).

TSB Revision

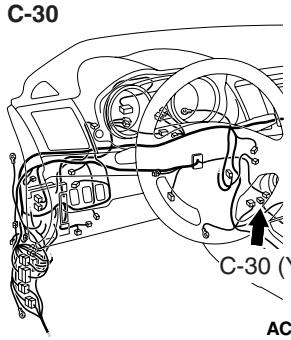
DTC B1B1A: Curtain Air Bag Module (LH) (Squib) System (Squib Circuit Open)

Curtain Air Bag Module (Squib) (LH) Circuit



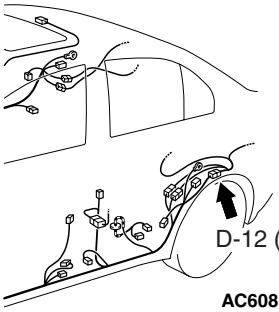
W8G52M007A

Connector: C-30



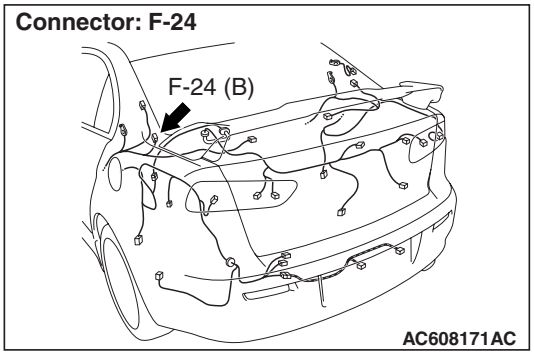
AC608145BA

Connector: D-12



AC608166AE

TSB Revision



⚠ CAUTION
If DTC B1B1A is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the curtain air bag module (LH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (LH) (squib).

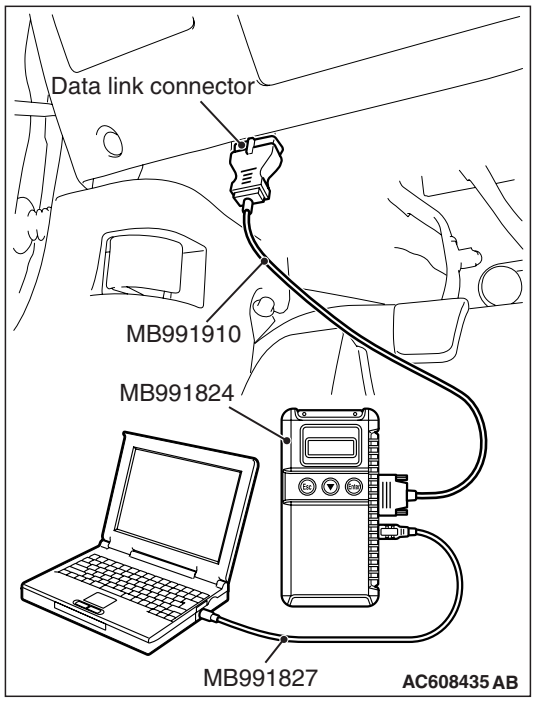
TROUBLESHOOTING HITS

- Open circuit in the curtain air bag module (LH) (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness
- MB991884: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

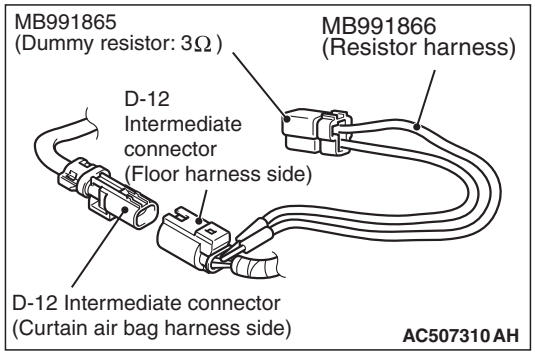
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunctions P.00-13).



STEP 3. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-12 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

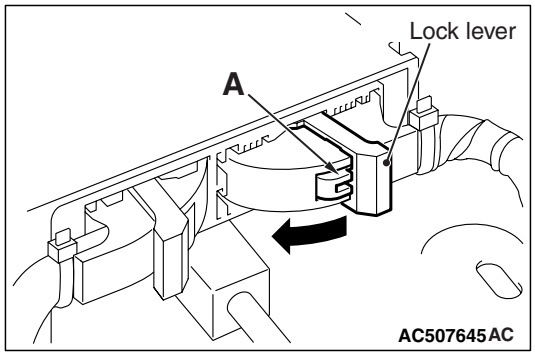
Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-12 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
(7) Disconnect the negative battery terminal.

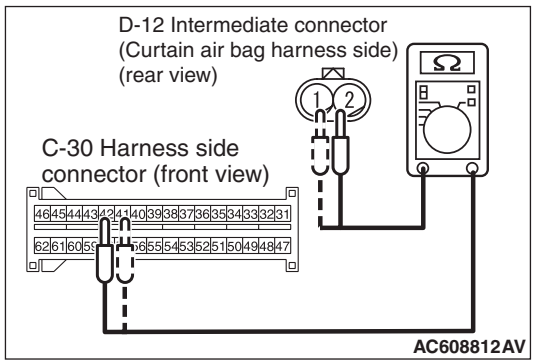
Q: Is DTC B1B1A set?

YES : Go to Step 4.
NO : Go to Step 5.

STEP 4. Resistance measurement at the C-30 SRS-ECU connector and the D-12 intermediate connector.



(1) Disconnect the negative battery terminal.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.
(3) Disconnect the D-12 intermediate connector (connection between curtain air bag harness and floor harness).



⚠ CAUTION

Do not insert a probe into the terminal from D-12 intermediate connector front side directly, as the connector contact pressure may be weakened.

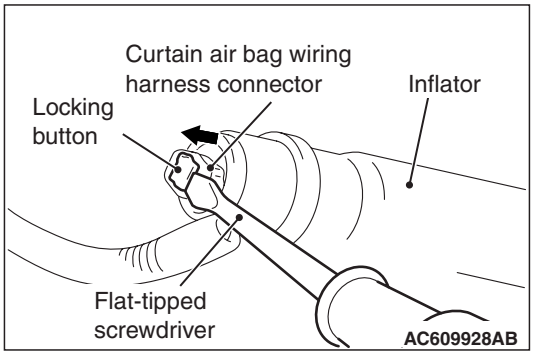
(4) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-30 (terminal No.41) and the intermediate connector D-12 (terminal No.1)
- SRS-ECU connector C-30 (terminal No.42) and the intermediate connector D-12 (terminal No.2)

Q: Does continuity exist?

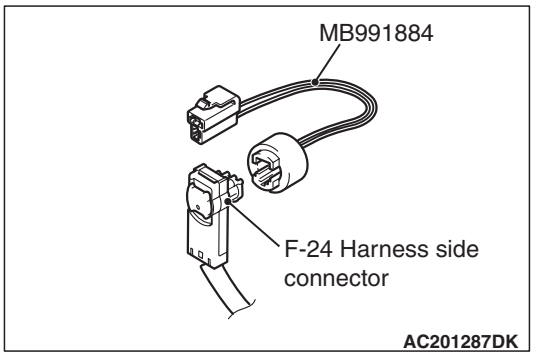
YES : Go to Step 6.
NO : Repair the wiring harness between the C-30 harness side connector terminal No. 41, 42 and the D-12 intermediate connector (floor harness side) terminal No. 1, 2.

STEP 5. Resistance measurement at the D-12 intermediate connector terminal No. 1, 2 and the F-24 curtain air bag module harness side connector terminal No. 1, 2.

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-12 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Disconnect curtain air bag module (LH) F-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

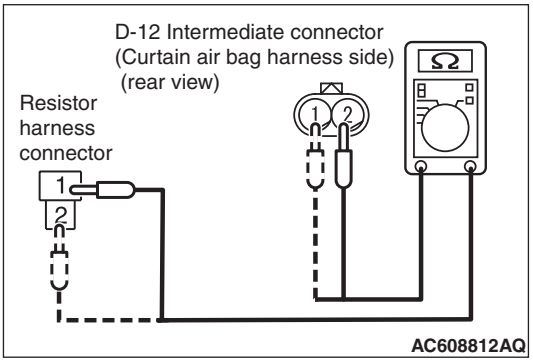


(4) Connect special tool MB991884 to the removed F-24 harness side connector.



⚠ CAUTION
Do not insert a probe into the terminal from D-12 intermediate connector front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between the following terminals. It should be less than 2 ohms.
- Intermediate connector D-12 (terminal No.1) and resistor harness connector terminal No.2)
- Intermediate connector D-12 (terminal No.2) and resistor harness connector terminal No.1)



Q: Does continuity exist?

YES : Replace the curtain air bag module (squib) (Refer to P.52B-385).
NO : Repair the wiring harness.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

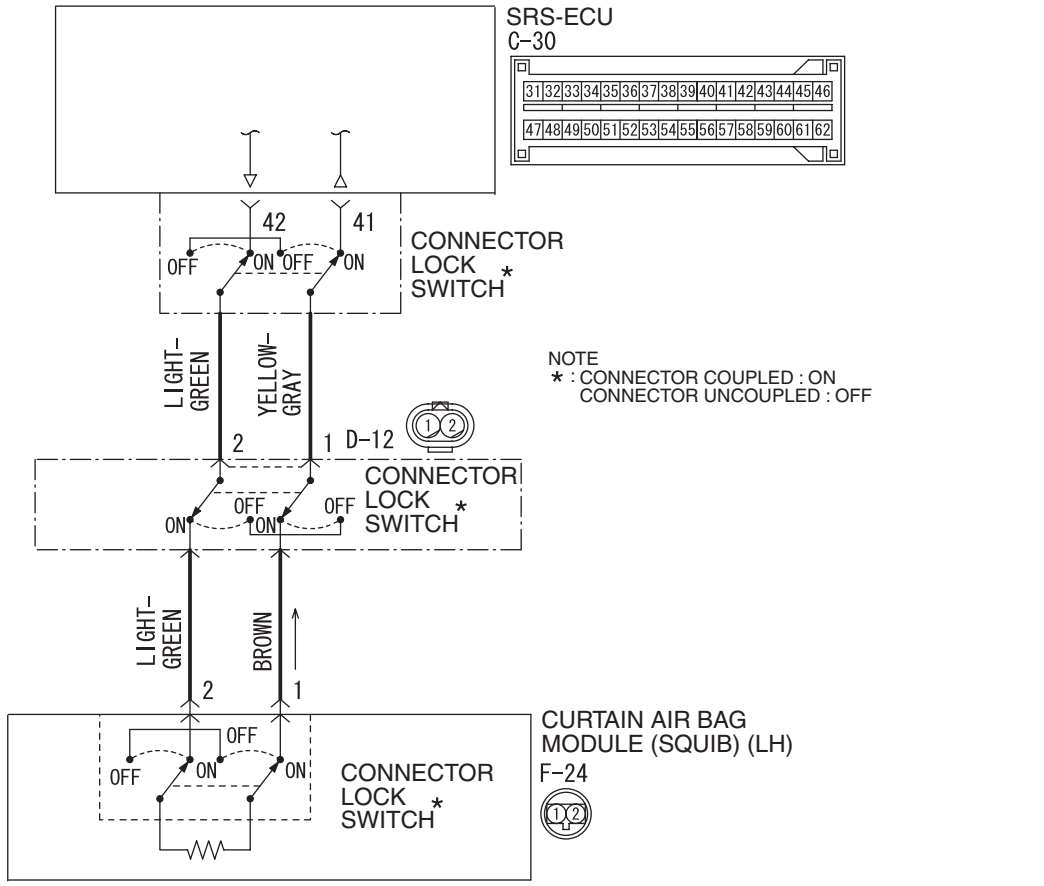
Q: Is DTC B1B1A set?

YES : Replace SRS-ECU (Refer to P.52B-364).
NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunction P.00-13).

TSB Revision

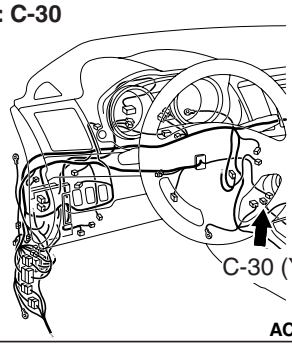
DTC B1B1B: Curtain Air Bag Module (LH) (Squib) System (Short Circuit between Squib Circuit Terminals)

Curtain Air Bag Module (Squib) (LH) Circuit



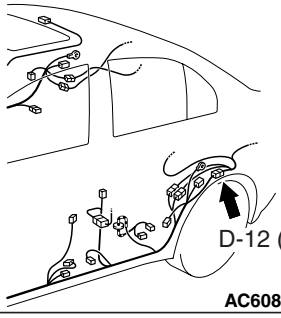
W8G52M007A

Connector: C-30



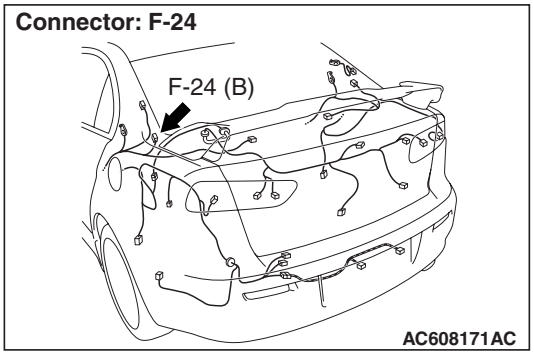
AC608145BA

Connector: D-12



AC608166AE

TSB Revision



⚠ CAUTION
If DTC B1B1B is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the curtain air bag module (LH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (LH) (squib).

TROUBLESHOOTING HITS

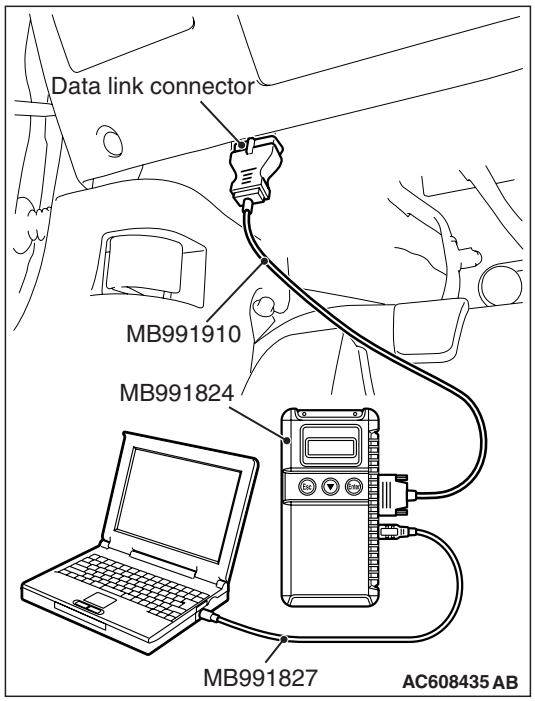
- Improper engaged connector or defective short spring*
- Short circuit between the curtain air bag module (LH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-30, D-12 or F-24 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

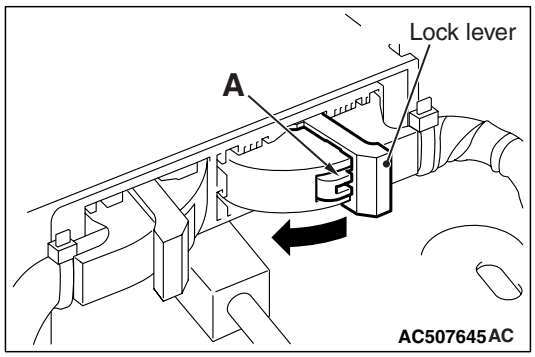
Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunctions P.00-13).

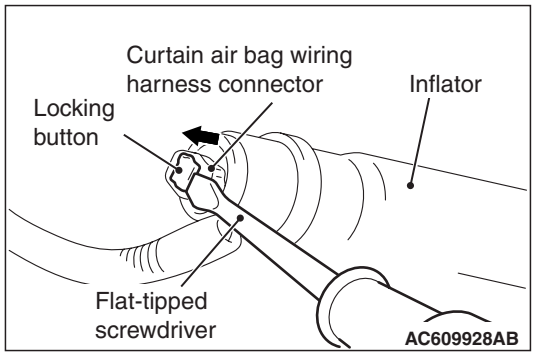
STEP 3. Check SRS-ECU connector C-30, curtain air bag module (LH) connector F-24 and intermediate connector D-12.

(1) Disconnect the negative battery terminal.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



(3) After disconnecting the D-12 and F-24 harness side connectors, connect the connectors again. For the F-24 connector disconnection, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it to ward you in two stages, and then disconnect the connector.



Q: Is DTC B1B1B set?

YES : Go to Step 4.

NO : Connector repair

STEP 4. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.

(2) Disconnect the D-12 intermediate connector (connection between curtain air bag harness and floor harness).

(3) Connect special tool MB991865 to special tool MB991866.

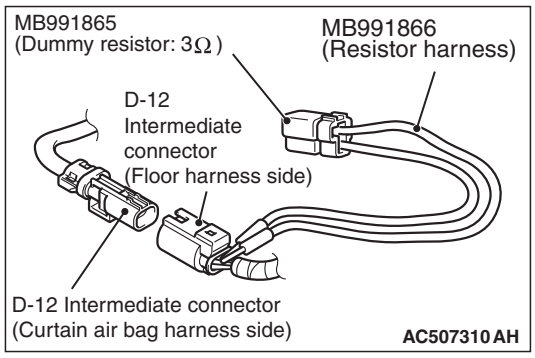
⚠ CAUTION

Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-12 intermediate connector (floor harness side).

(5) Connect the negative battery terminal.

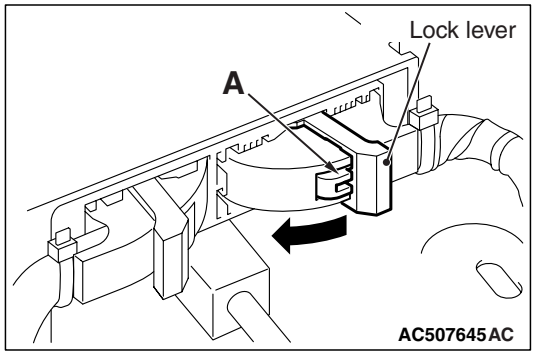
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.



Q: Is DTC B1B1B set?

YES : Go to Step 5.

NO : Go to Step 6.



STEP 5. Resistance measurement at the C-30 SRS-ECU connector.

(1) Disconnect the negative battery terminal.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.

⚠ ***DANGER***

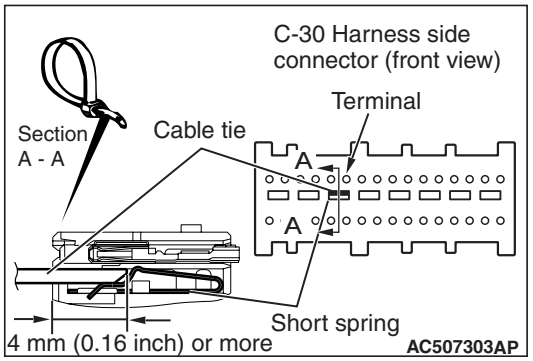
To prevent the air bag from deploying unintentionally, disconnect the intermediate connector D-12 to short the squib circuit.

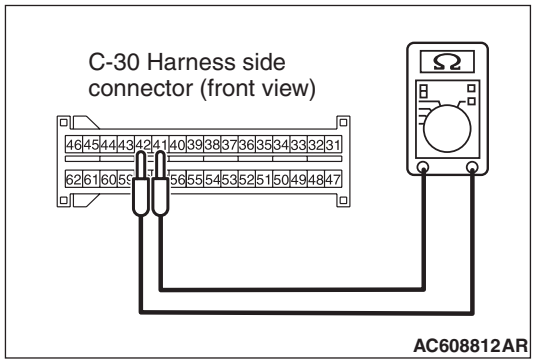
(3) Disconnect the D-12 intermediate connector (connection between curtain air bag harness and floor harness).

⚠ **CAUTION**

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.6 inch) or more.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminal 41, 42 and the short spring to release the short spring.





(5) Check for continuity between the C-30 wiring harness side connector terminal No. 41 and No. 42.
It should be open circuit.

Q: Does continuity exist?

YES : Repair the wiring harness.

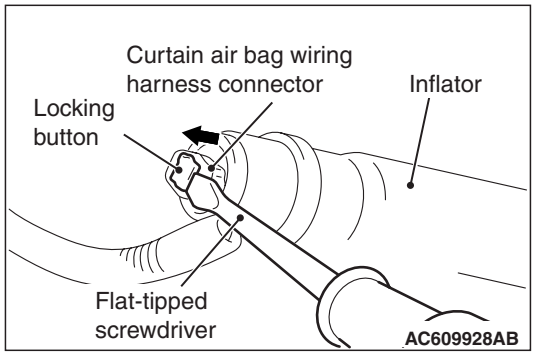
NO : Go to Step 7.

STEP 6. Short circuit check between the F-24 curtain air bag module harness side connector and the D-12 intermediate harness.

(1) Disconnect the negative battery terminal.

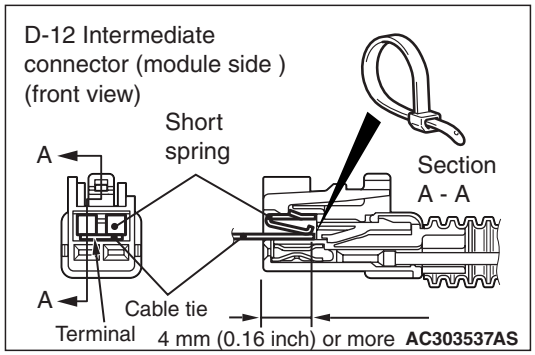
⚠ DANGER

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector F-24 to short the squib circuit.

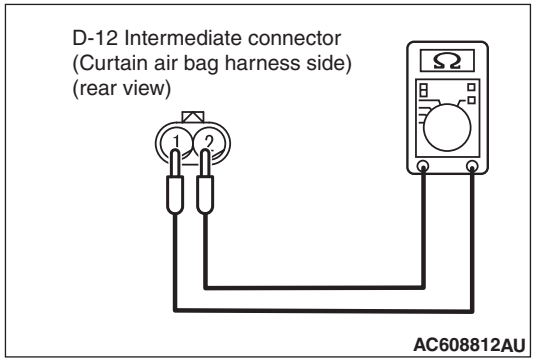


(2) Disconnect curtain air bag module (LH) F-24. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

(3) Disconnect the D-12 intermediate connector (connection between curtain air bag harness and floor harness).



(4) Because the short spring is installed to the D-12 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.



⚠ CAUTION

Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between the D-12 intermediate connector (curtain air bag harness side) terminal No.1 and 2.
It should be open circuit.

Q: Does continuity exist?

YES : Repair the wiring harness.

NO : Replace the curtain air bag module (LH) (Refer to P.52B-385). Then go to Step 7.

STEP 7. Recheck for diagnostic trouble code.

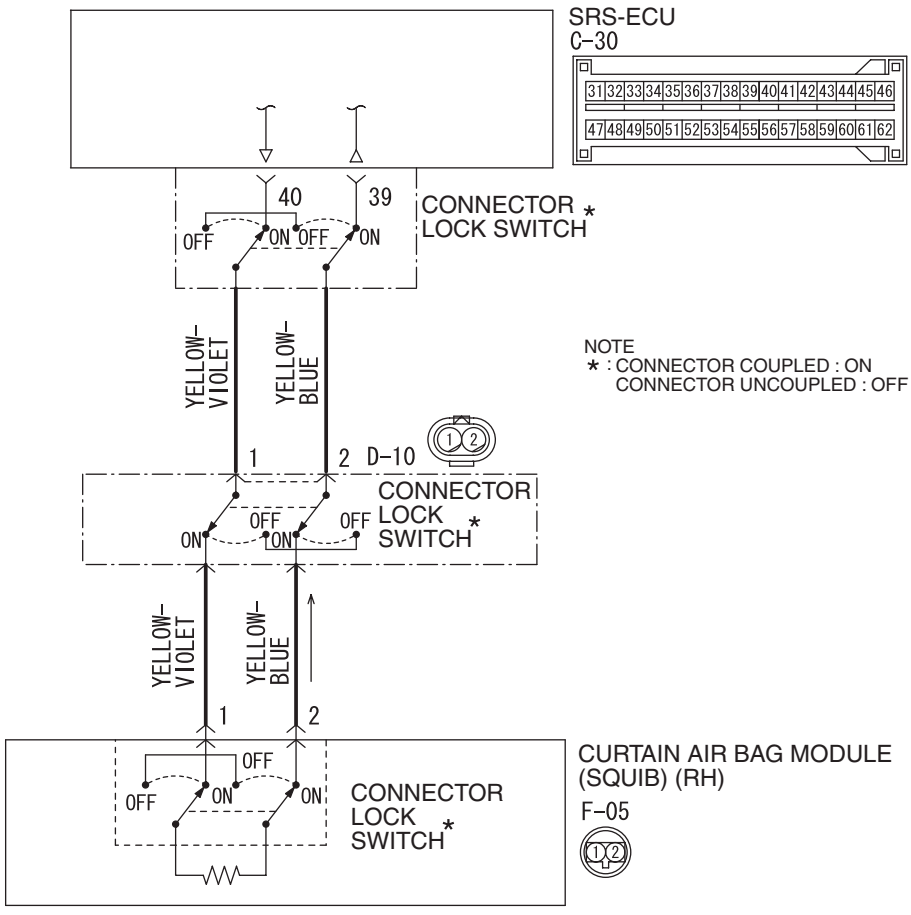
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B1B set?

YES : Replace SRS-ECU (Refer to P.52B-364).
NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunction P.00-13).

DTC B1B20: Curtain Air Bag Module (RH) (Squib) System (Shorted to Squib Circuit Ground)

Curtain Air Bag Module (Squib) (RH) Circuit



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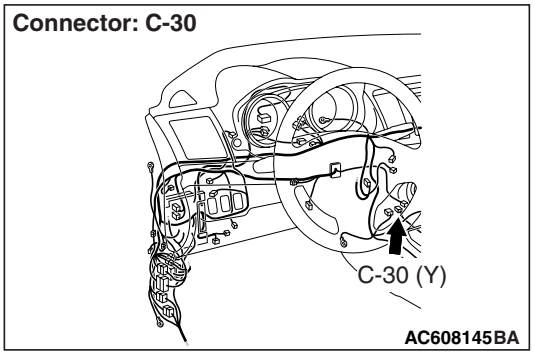
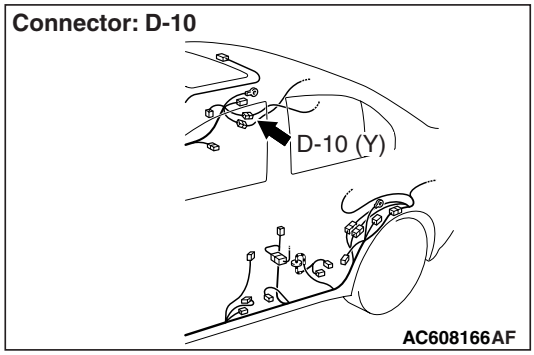
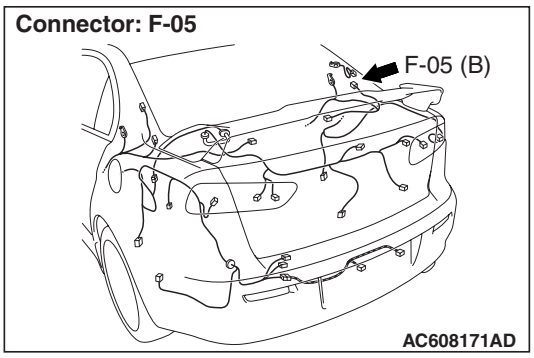






⚠ CAUTION
If DTC B1B20 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the curtain air bag module (RH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (RH) (squib).

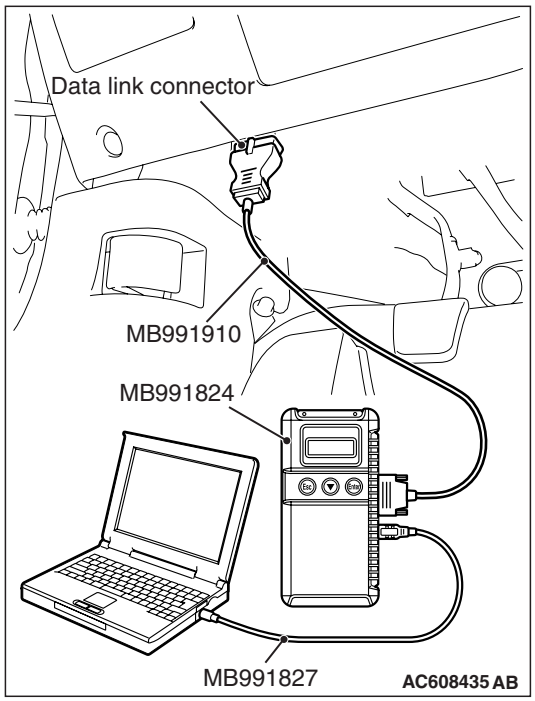
TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the curtain air bag module (RH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunctions P.00-13).

STEP 3. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-10 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

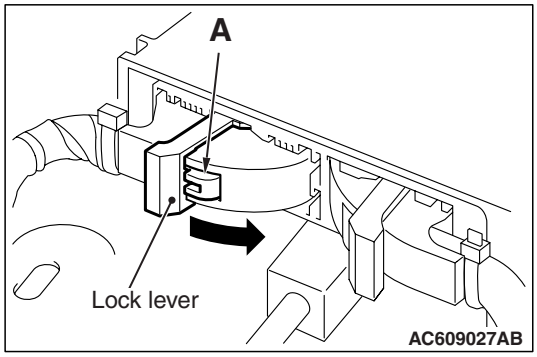
(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-10 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
(7) Disconnect the negative battery terminal.

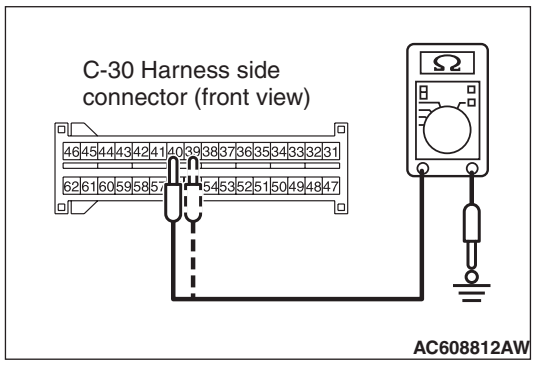
Q: Is DTC B1B20 set?

YES : Go to Step 4.
NO : Go to Step 5.

STEP 4. Resistance measurement at the C-30 SRS-ECU connector

(1) Disconnect the negative battery terminal.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.
(3) Disconnect the D-10 intermediate connector (connection between curtain air bag harness and floor harness).





(4) Check for continuity between C-30 wiring harness side connector terminal No. 39, 40 and body ground.
It should be open circuit.

Q: Does continuity exist?

YES : Repair the wiring harness.
NO : Go to Step 6.

STEP 5. Resistance measurement at the D-10 intermediate connector.

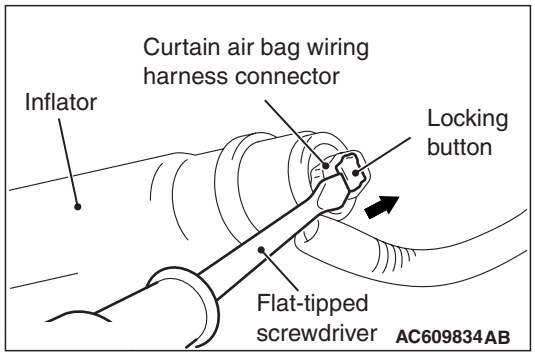
(1) Disconnect the negative battery terminal.

⚠ ***DANGER***

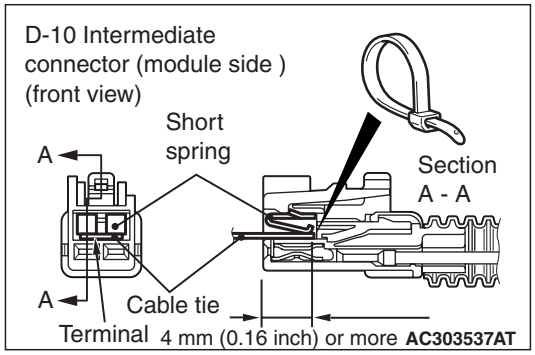
To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector F-05 to short the squib circuit.

(2) Disconnect curtain air bag module (RH) F-05. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

(3) Disconnect the D-10 intermediate connector (connection between curtain air bag harness and floor harness).



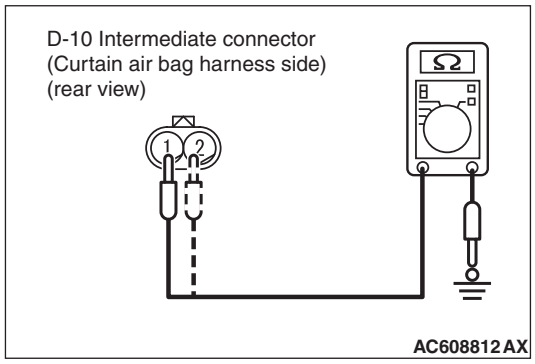
(4) Because the short spring is installed to the D-10 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.



⚠ **CAUTION**

Do not insert a probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(5) Check for continuity between the D-10 intermediate connector (module side) terminal No. 1, 2 and the body ground.
It should be open circuit.



Q: Does continuity exist?

YES : Repair the wiring harness.

NO : Replace the curtain air bag module (squib) (Refer to P.52B-385).

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.

(2) Turn the ignition switch to the "ON" position.

(3) Check if the DTC is set.

(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B20 set?

YES : Replace SRS-ECU (Refer to P.52B-364).

NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunction P.00-13).

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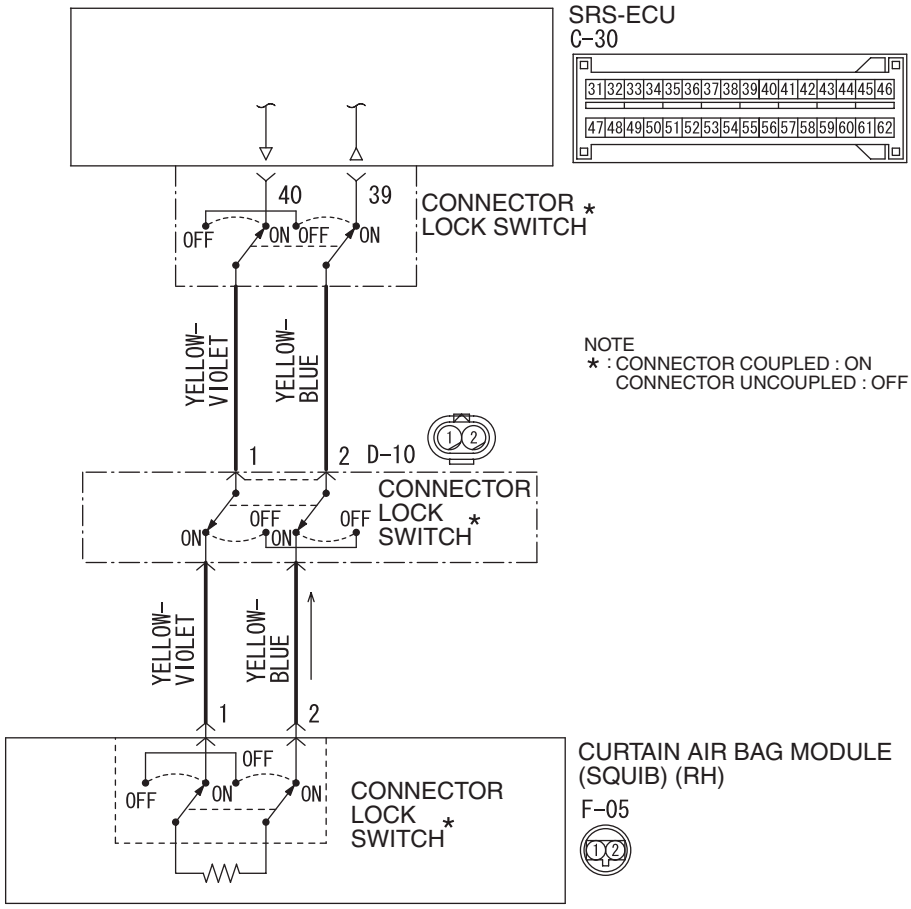
DTC B1B21: Curtain Air Bag Module (RH) (Squib) System (Shorted to Squib Circuit Power Supply)

Curtain Air Bag Module (Squib) (RH) Circuit



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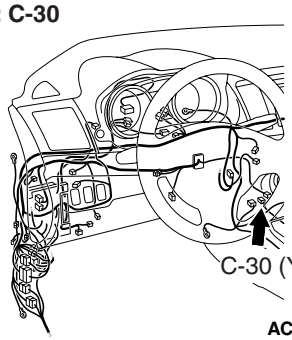
Connector: C-30



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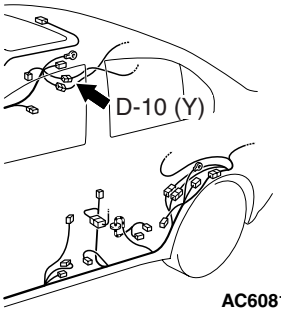
Connector: D-10



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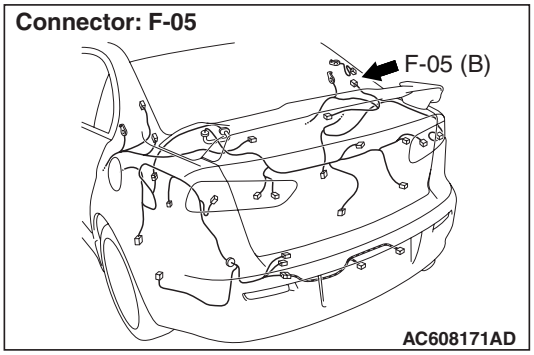
TSB Revision



⚠ CAUTION
If DTC B1B21 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the curtain air bag module (RH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (RH) (squib).

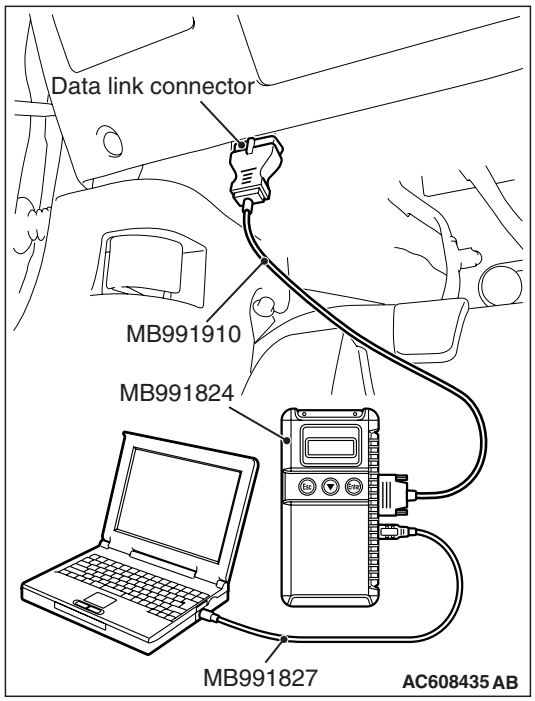
TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the power supply in the curtain air bag module (RH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

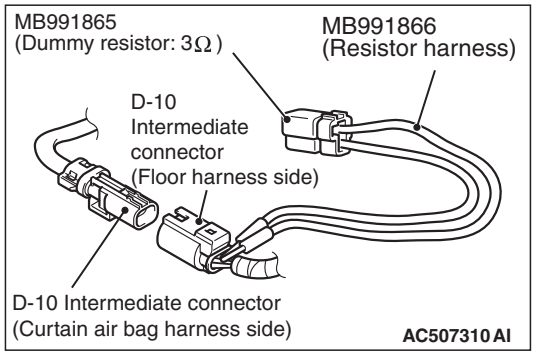
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunctions P.00-13).



STEP 3. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-10 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

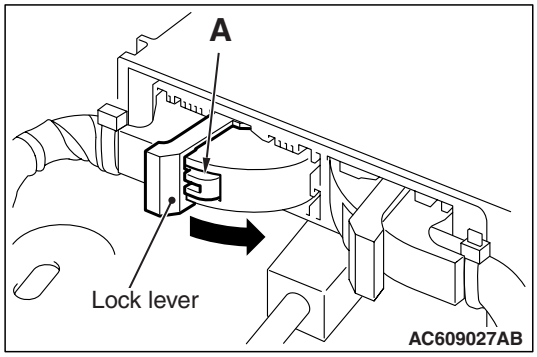
Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-10 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
(7) Disconnect the negative battery terminal.

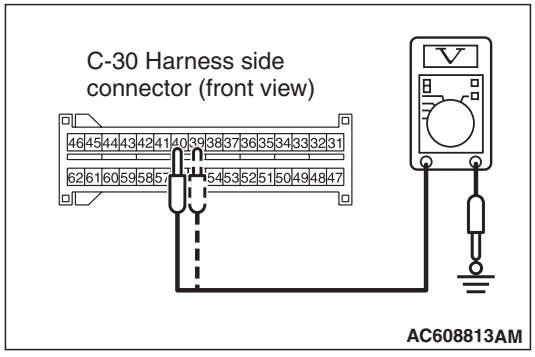
Q: Is DTC B1B21 set?

YES : Go to Step 4.
NO : Go to Step 5.

STEP 4. Voltage measurement at the C-30 SRS-ECU connector.



(1) Disconnect the negative battery terminal.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.
(3) Disconnect the D-10 intermediate connector (connection between curtain air bag harness and floor harness).
(4) Connect the negative battery terminal.
(5) Ignition switch: ON



(6) Measure the voltage between the C-30 wiring harness side connector terminal No. 39, 40 and body ground.
Voltage should measure 0 volt

Q: Is the measured 0 volt?

YES : Go to Step 6.
NO : Repair the wiring harness.

STEP 5. Voltage measurement at the D-10 intermediate connector.

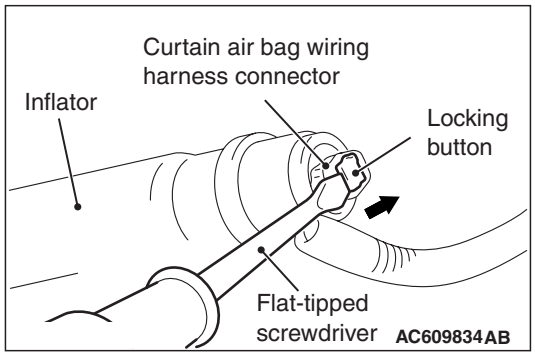
(1) Disconnect the negative battery terminal.

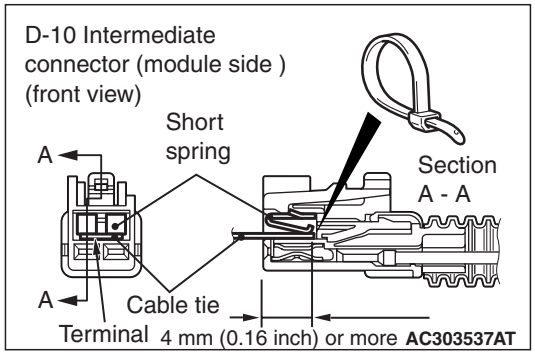
⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector F-05 to short the squib circuit.

(2) Disconnect curtain air bag module (RH) F-05. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

(3) Disconnect the D-10 intermediate connector (connection between curtain air bag harness and floor harness).

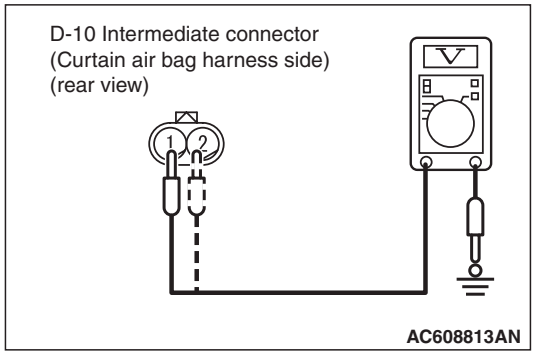




(4) Because the short spring is installed to the D-10 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.

(5) Connect the negative battery terminal.

(6) Ignition switch: ON



⚠ **CAUTION**

Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(7) Check for continuity between the D-10 intermediate connector (curtain air bag harness side) terminal No. 1, 2 and the body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage 0 volt?

YES : Replace the curtain air bag module (squib) (Refer to P.52B-385).

NO : Repair the wiring harness.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.

(2) Turn the ignition switch to the "ON" position.

(3) Check if the DTC is set.

(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B21 set?

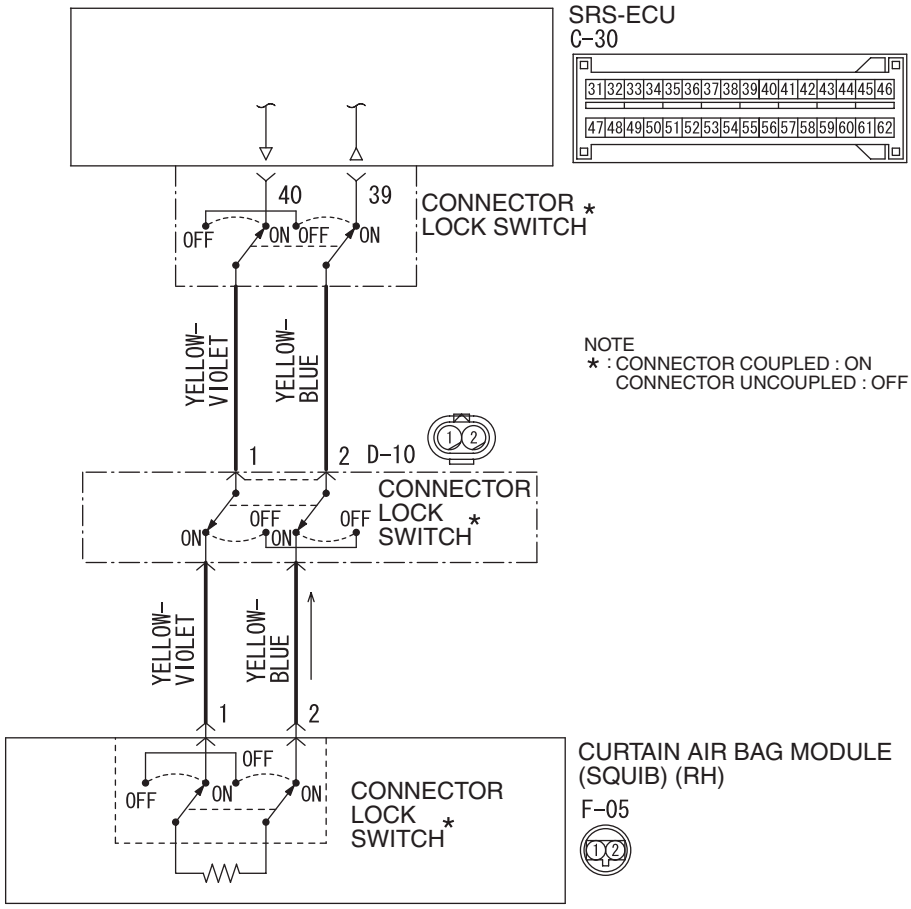
YES : Replace SRS-ECU (Refer to P.52B-364).

NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunction P.00-13).

TSB Revision

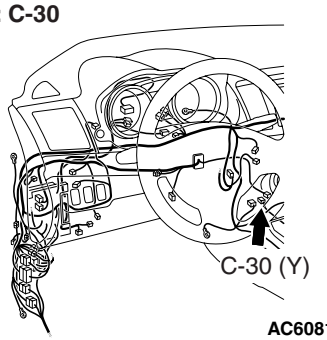
DTC B1B22: Curtain Air Bag Module (RH) (Squib) System (Squib Circuit Open)

Curtain Air Bag Module (Squib) (RH) Circuit



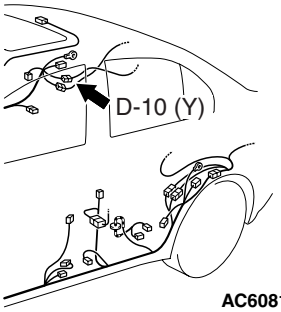
W8G52M006A

Connector: C-30



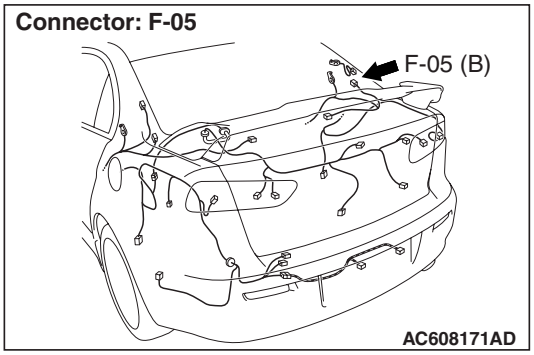
AC608145BA

Connector: D-10



AC608166AF

TSB Revision



⚠ CAUTION
If DTC B1B22 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the curtain air bag module (RH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (RH) (squib).

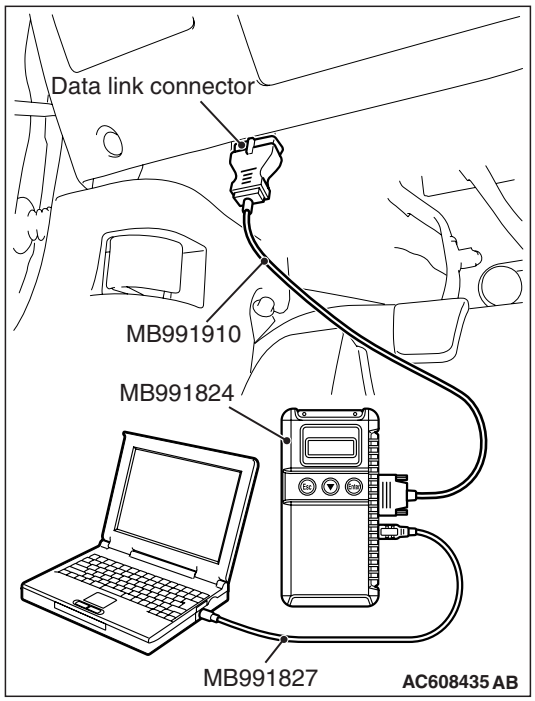
TROUBLESHOOTING HITS

- Open circuit in the curtain air bag module (RH) (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness
- MB991884: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

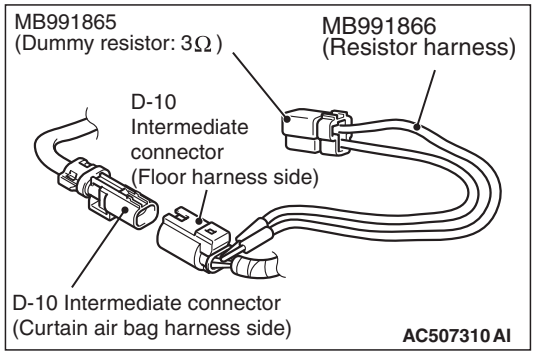
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunctions P.00-13).



STEP 3. Check by dummy resistor connection.

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-10 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION

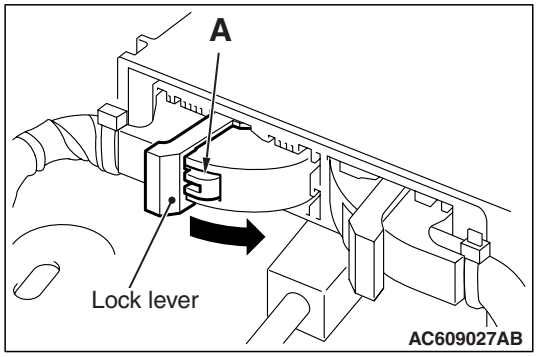
Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-10 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.
(7) Disconnect the negative battery terminal.

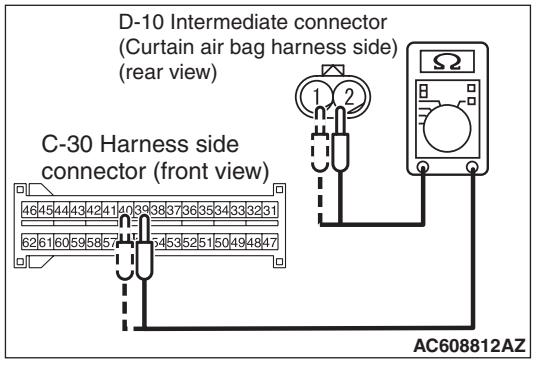
Q: Is DTC B1B22 set?

YES : Go to Step 4.
NO : Go to Step 5.

STEP 4. Resistance measurement at the C-30 SRS-ECU connector and the D-10 intermediate connector.



(1) Disconnect the negative battery terminal.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.
(3) Disconnect the D-10 intermediate connector (connection between curtain air bag harness and floor harness).


D-10 Intermediate connector
(Curtain air bag harness side)
(rear view)
C-30 Harness side
connector (front view)
1 2
46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31
62 61 60 59 58 57 54 53 52 51 50 49 48 47
AC608812AZ

⚠ CAUTION

Do not insert a probe into the terminal from D-10 intermediate connector front side directly, as the connector contact pressure may be weakened.

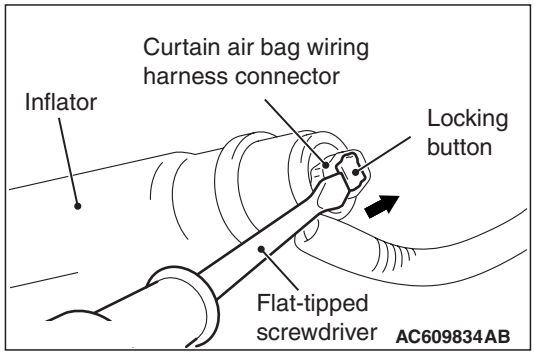
(4) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-30 (terminal No.39) and the intermediate connector D-10 (terminal No.2)
- SRS-ECU connector C-30 (terminal No.40) and the intermediate connector D-10 (terminal No.1)

Q: Does continuity exist?

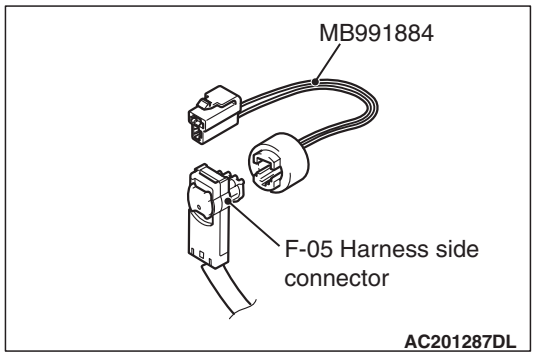
YES : Go to Step 6.
NO : Repair the wiring harness between the C-30 harness side connector terminal No. 39, 40 and the D-10 intermediate connector (floor harness side) terminal No. 2, 1.

STEP 5. Resistance measurement at the D-10 intermediate connector terminal No. 1, 2 and the F-05 curtain air bag module harness side connector terminal No. 1, 2.

(1) Disconnect the negative battery terminal.
(2) Disconnect the D-10 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Disconnect curtain air bag module (RH) F-05. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

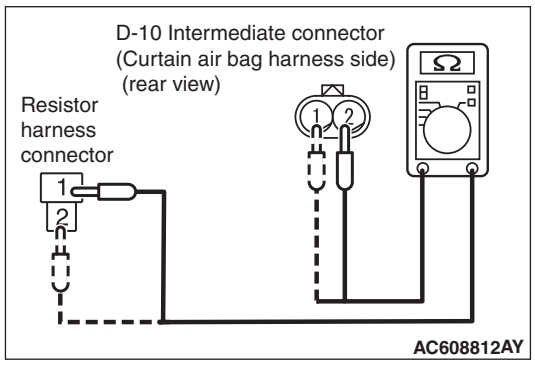


(4) Connect special tool MB991884 to the removed F-05 harness side connector.



⚠ CAUTION
Do not insert a probe into the terminal from D-10 intermediate connector front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between the following terminals. It should be less than 2 ohms.
- Intermediate connector D-10 (terminal No.1) and resistor harness connector terminal No.2)
- Intermediate connector D-10 (terminal No.2) and resistor harness connector terminal No.1)



Q: Does continuity exist?

YES : Replace the curtain air bag module (squib) (Refer to P.52B-385).
NO : Repair the wiring harness.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

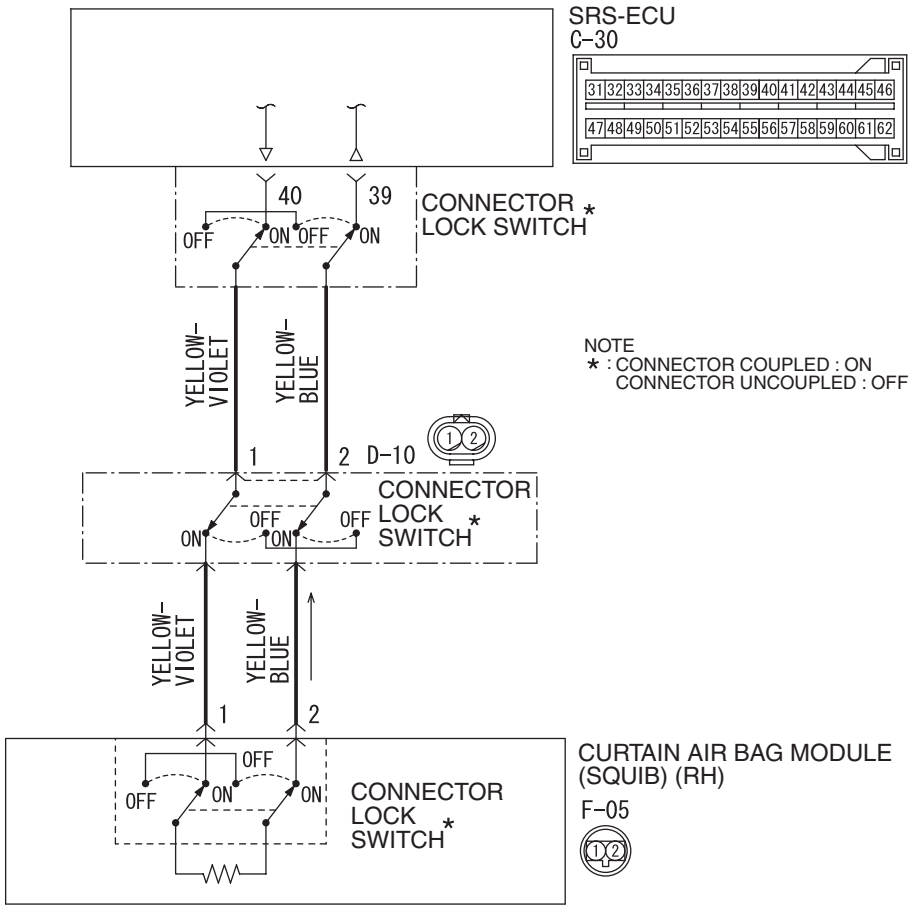
Q: Is DTC B1B22 set?

YES : Replace SRS-ECU (Refer to P.52B-364).
NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunction P.00-13).

TSB Revision

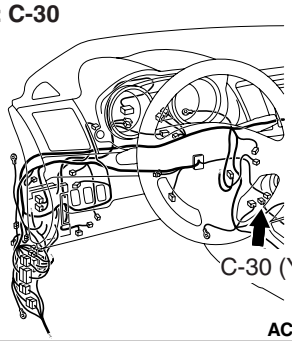
DTC B1B23: Curtain Air Bag Module (RH) (Squib) System (Short Circuit between Squib Circuit Terminals)

Curtain Air Bag Module (Squib) (RH) Circuit



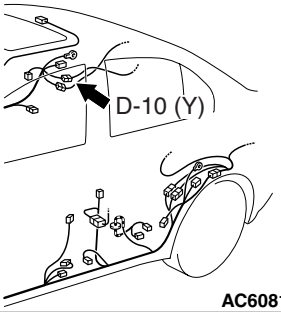
W8G52M006A

Connector: C-30



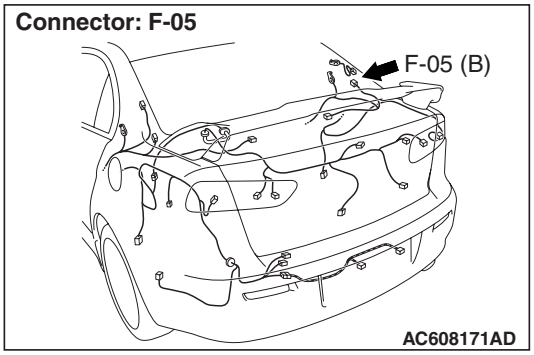
AC608145BA

Connector: D-10



AC608166AF

TSB Revision



⚠ CAUTION
If DTC B1B23 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensors installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the curtain air bag module (RH) to inflate the curtain air bag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the curtain air bag module (RH) (squib).

TROUBLESHOOTING HITS

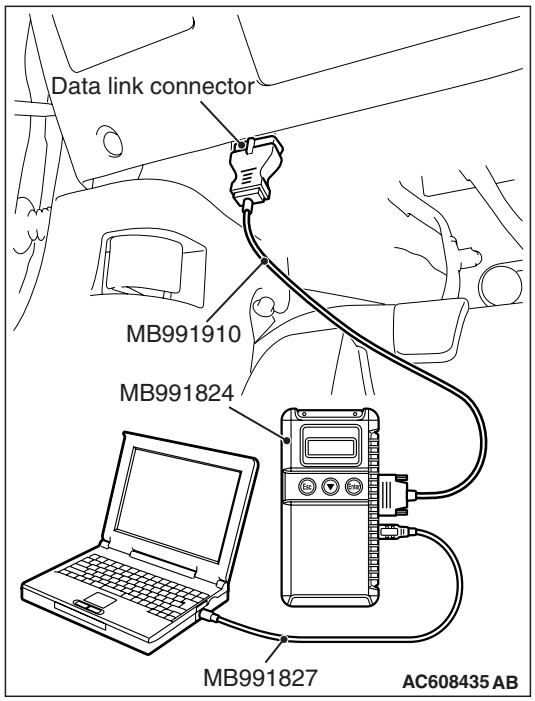
- Improper engaged connector or defective short spring*
- Short circuit between the curtain air bag module (RH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-30, D-10 or F-05 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

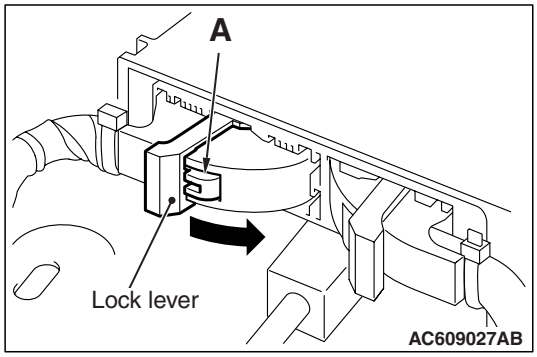
STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

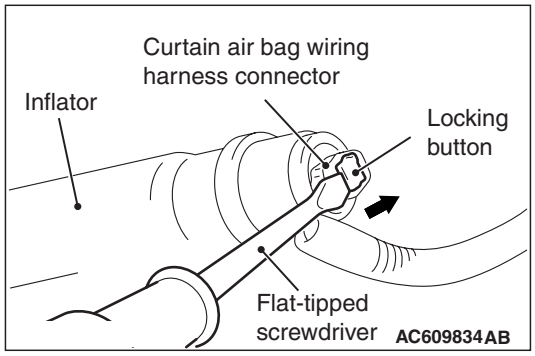
Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunctions P.00-13).

STEP 3. Check SRS-ECU connector C-30, curtain air bag module (RH) connector F-05 and intermediate connector D-10.



(1) Disconnect the negative battery terminal.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.

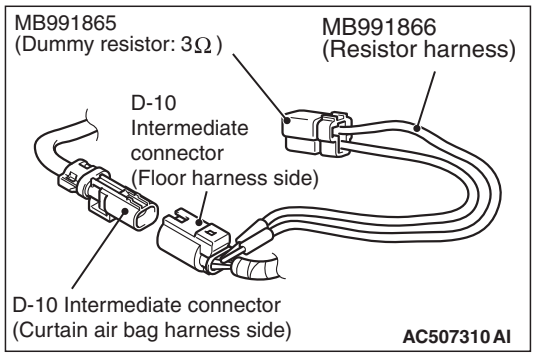


(3) After disconnecting the D-10 and F-05 harness side connectors, connect the connectors again. For the F-05 connector disconnection, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it to ward you in two stages, and then disconnect the connector.

Q: Is DTC B1B23 set?

YES : Go to Step 4.
NO : Connector repair

STEP 4. Check by dummy resistor connection.



(1) Disconnect the negative battery terminal.
(2) Disconnect the D-10 intermediate connector (connection between curtain air bag harness and floor harness).
(3) Connect special tool MB991865 to special tool MB991866.

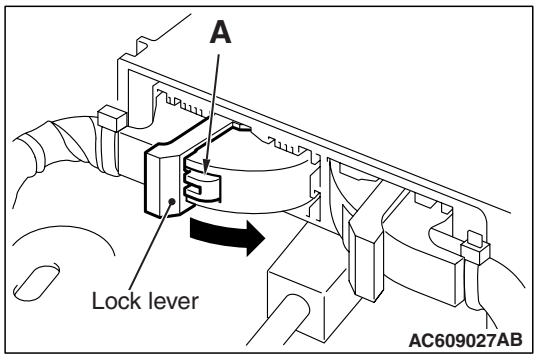
⚠ CAUTION

Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert the probe of resistor harness, to which the dummy resistor is installed, from the back of D-10 intermediate connector (floor harness side).
(5) Connect the negative battery terminal.
(6) After erasing the diagnostic trouble code memory, check the diagnostic trouble code again.

Q: Is DTC B1B23 set?

YES : Go to Step 5.
NO : Go to Step 6.



STEP 5. Resistance measurement at the C-30 SRS-ECU connector.

(1) Disconnect the negative battery terminal.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.

⚠ *DANGER*

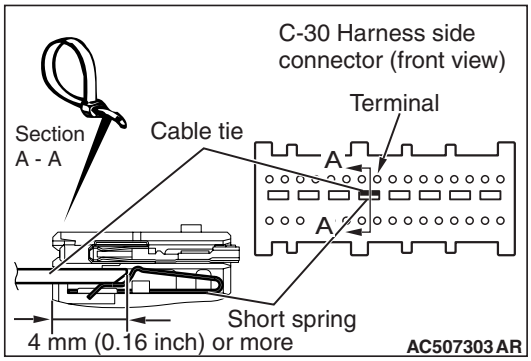
To prevent the air bag from deploying unintentionally, disconnect the intermediate connector D-10 to short the squib circuit.

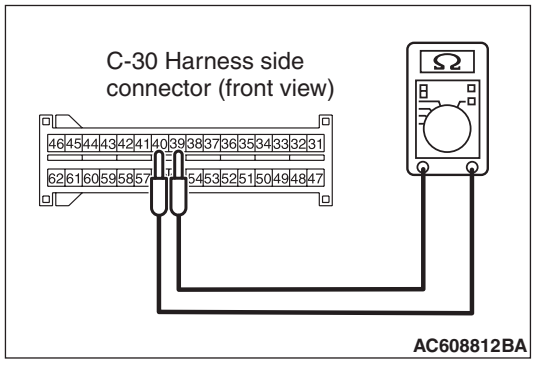
(3) Disconnect the D-10 intermediate connector (connection between curtain air bag harness and floor harness).

⚠ CAUTION

The short spring may not be released due to the insufficient insertion. Therefore, insert the insulator for 4 mm (0.6 inch) or more.

(4) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminal 39, 40 and the short spring to release the short spring.





(5) Check for continuity between the C-30 wiring harness side connector terminal No. 39 and No. 40.
It should be open circuit.

Q: Does continuity exist?

YES : Repair the wiring harness.

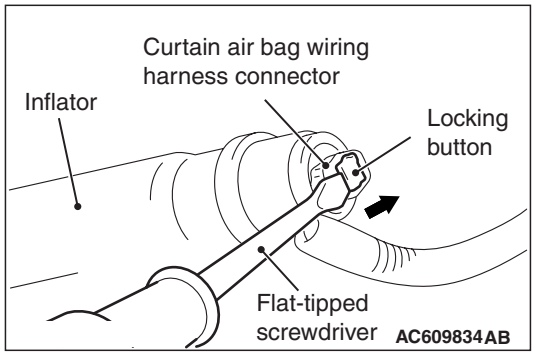
NO : Go to Step 7.

STEP 6. Short circuit check between the F-05 curtain air bag module harness side connector and the D-10 intermediate harness.

(1) Disconnect the negative battery terminal.

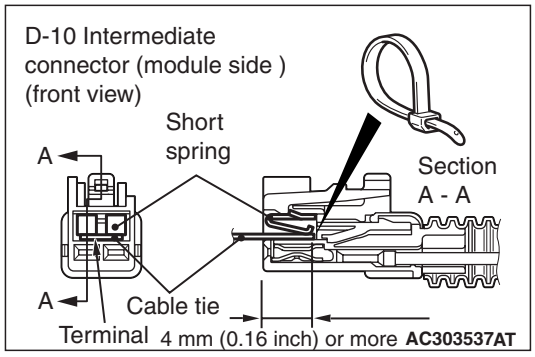
⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the curtain air bag module connector F-05 to short the squib circuit.

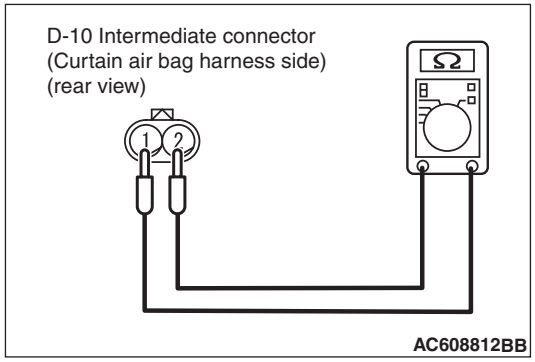


(2) Disconnect curtain air bag module (RH) F-05. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

(3) Disconnect the D-10 intermediate connector (connection between curtain air bag harness and floor harness).



(4) Because the short spring is installed to the D-10 intermediate connector (curtain air bag harness side), insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 1, 2 and the short spring to release the short spring.



⚠ **CAUTION**

Do not insert a probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between the D-10 intermediate connector (curtain air bag harness side) terminal No.1 and 2.
It should be open circuit.

Q: Does continuity exist?

YES : Repair the wiring harness.

NO : Replace the curtain air bag module (RH) (Refer to P.52B-385). Then go to Step 7.

STEP 7. Recheck for diagnostic trouble code.

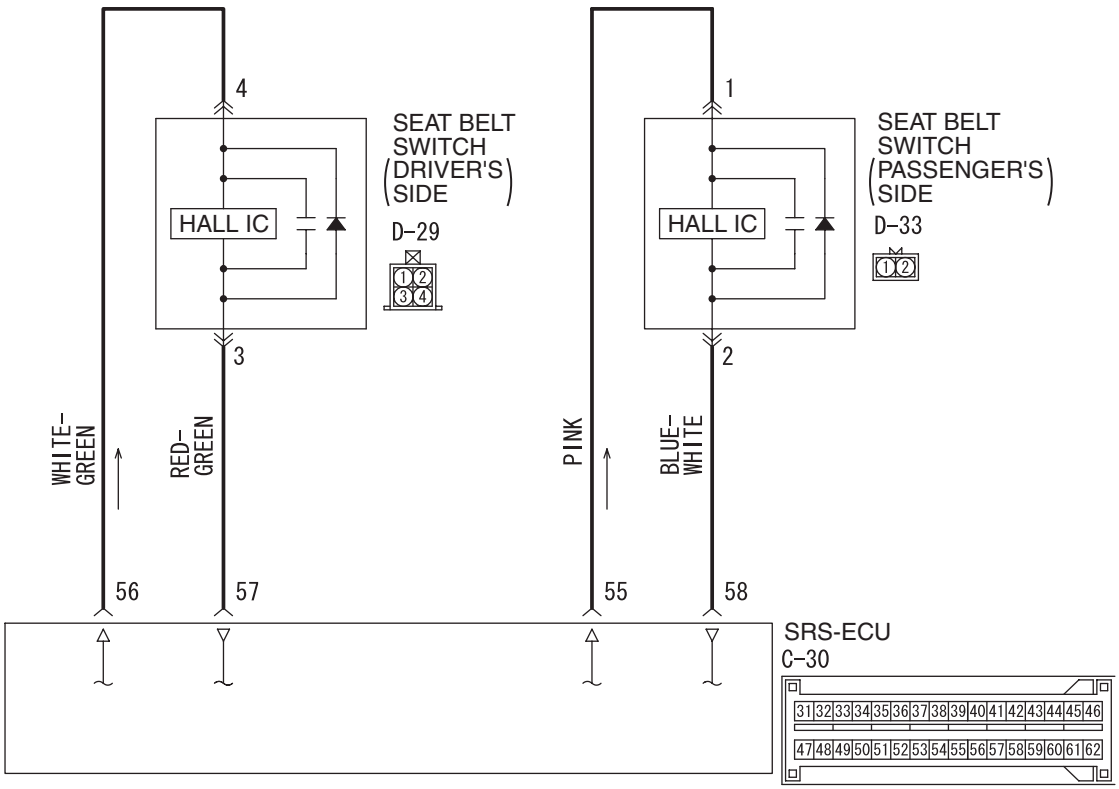
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B23 set?

YES : Replace SRS-ECU (Refer to P.52B-364).
NO : Intermittent Malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunction P.00-13).

DTC B1B50: Seat Belt Switch (LH) Circuit (Ground Side) Shorted
DTC B1B51: Seat Belt Switch (LH) Circuit (Power Supply Side) Shorted
DTC B1B52: Seat Belt Switch (LH) Circuit Open

Seat Belt Switch Circuit



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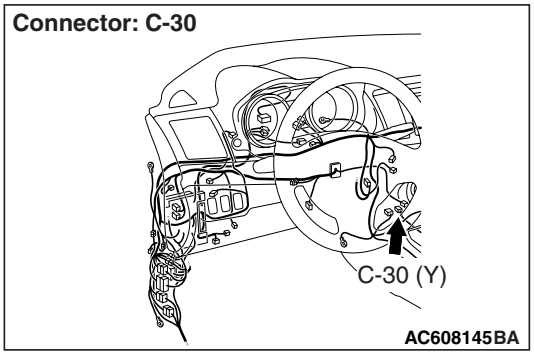
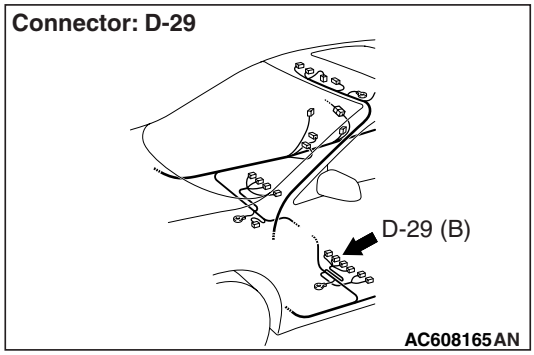




⚠ CAUTION

If DTC B1B50, B1B51 or B1B52 are set in the SRS-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION

The SRS-ECU determines whether the seat belt is fastened or not according to the connection location of the seat belt switch in the seat buckle.

DTC SET CONDITIONS

DTC is set when the resistance between input terminals of the seat belt switch in the SRS-ECU is without the standard value.

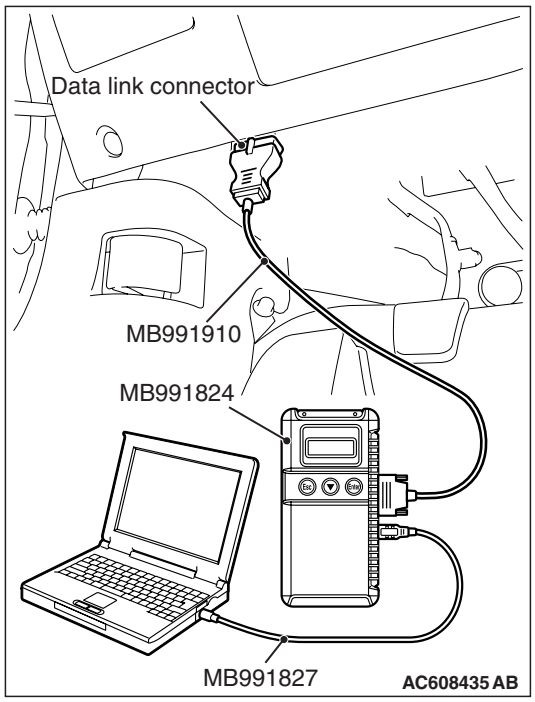
TROUBLESHOOTING HINTS

- Malfunction of the seat belt switch
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991222: Probe
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Connect scan tool MB991958 to the data link connector.
(3) Turn the ignition switch to the "ON" position.
(4) Diagnose the CAN bus line.
(5) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

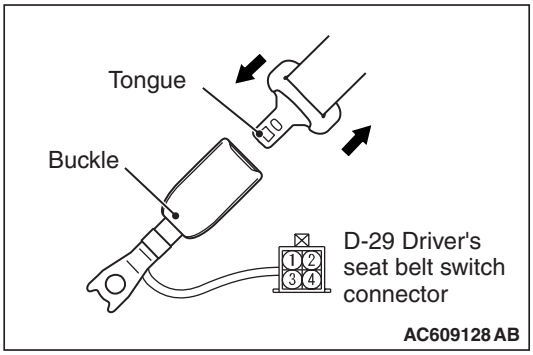
YES : Go to Step 3.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

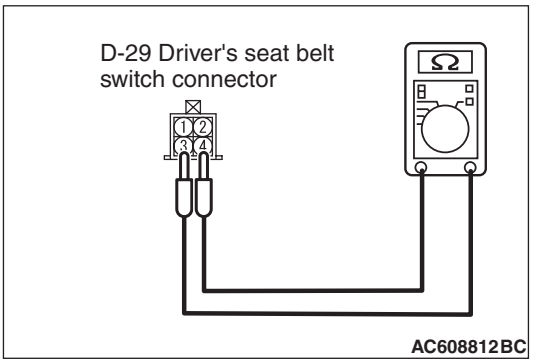
STEP 2. Recheck for diagnostic trouble code.

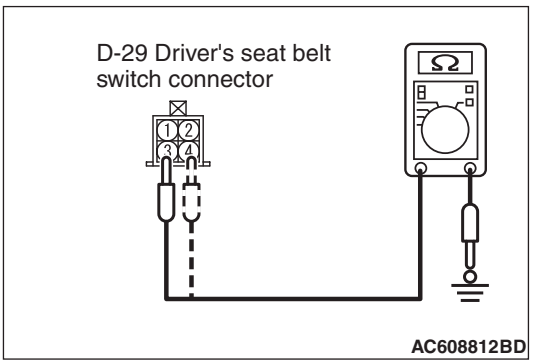
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).







STEP 3. Check the driver's seat belt switch.
Disconnect driver's seat belt switch connector D-29. Then check continuity between the switch terminals.

Item	Tester connection	Specified condition
Fastened seat belt	3 –Ground	Open circuit
	4 –Ground	Open circuit
	3 –4	Continuity (Less than 2 Ω)
Unfastened seat belt	3 –Ground	Open circuit
	4 –Ground	Open circuit
	3 –4	Open circuit

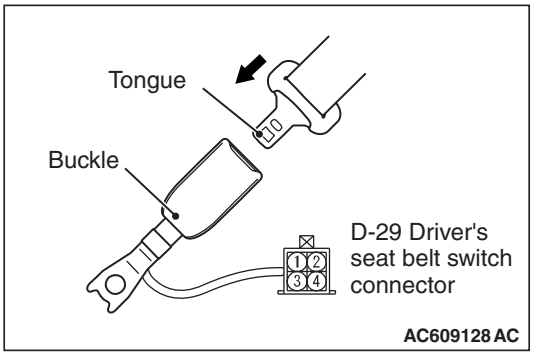
Q: Is driver's seat belt switch in good condition?

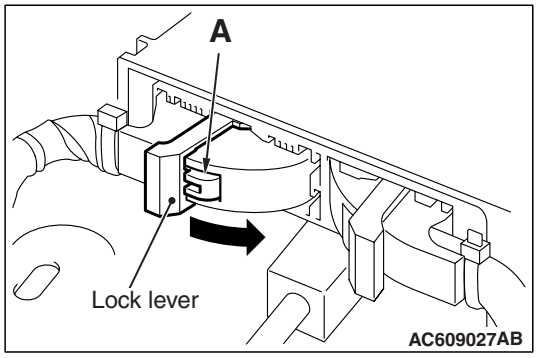
YES : Go to Step 4.

NO : Replace inner seat belt (Refer to GROUP 52A, Front Seat Belt P.52A-29).

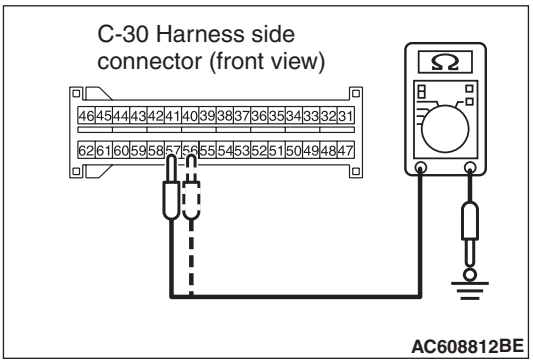
STEP 4. Check the driver's seat belt switch circuit D-29. Measure the resistance at SRS-ECU connector C-30.

(1) Disconnect driver's seat belt switch connector D-29.
(2) Install the driver's seat belt to the driver's seat belt switch.
(3) Disconnect SRS-ECU connector C-30 and measure at the harness side.

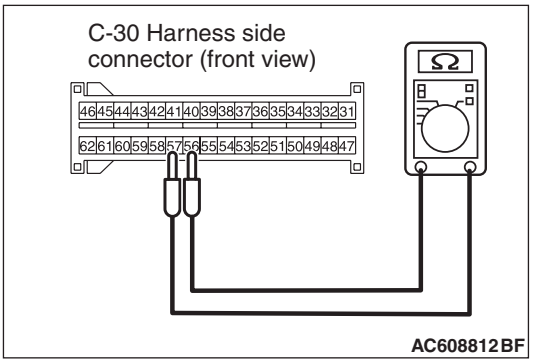




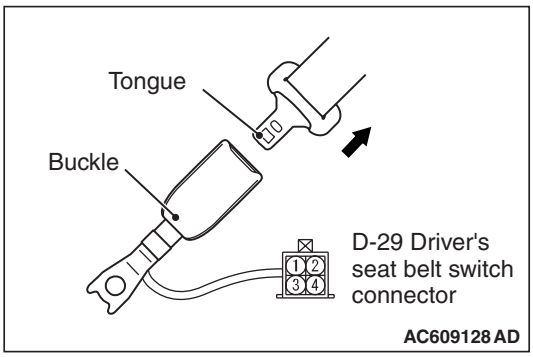
(4) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



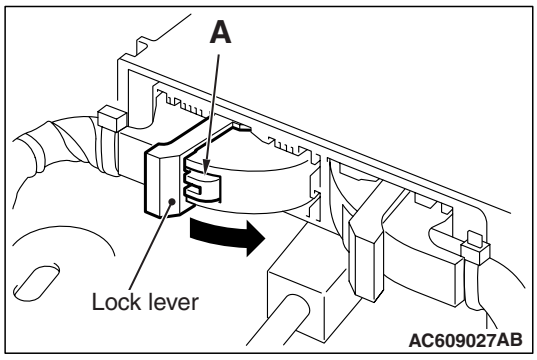
(5) Measure the resistance between terminal 56, 57 and body ground.
It should be an open circuit



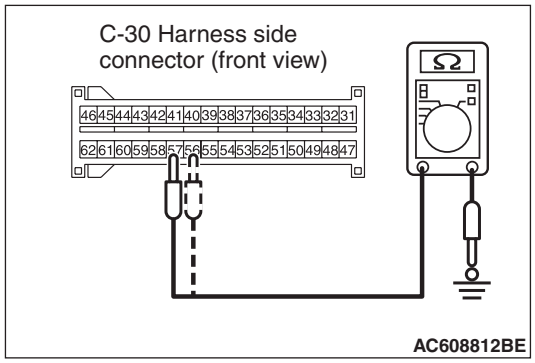
(6) Measure the resistance between terminal 56 and terminal 57.
Resistance should be less than 2 ohms



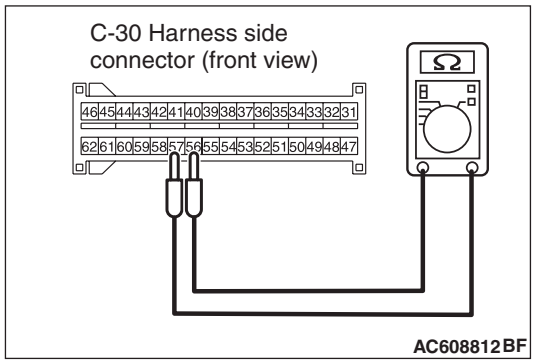
(7) Remove the driver's seat belt from the driver's seat belt switch.
(8) Disconnect SRS-ECU connector C-30 and measure at the harness side.



(9) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



(10)Measure the resistance between terminal 56, 57 and body ground.
It should be an open circuit



(11)Measure the resistance between terminal 56 and terminal 57.
It should be an open circuit

Q: Does the resistance meet the value above?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B50, B1B51or B1B52 are set, replace the SRS-ECU (Refer to P.52B-364).Then go to Step 6.

NO : Go to Step 5.

STEP 5. Check the harness wires between SRS-ECU connector C-30 (terminal No.56 and 57) and driver's seat belt switch connector D-29 (terminal No.3 and 4).

Q: Are harness wires between SRS-ECU connector C-30 (terminal No.56 and 57) and driver's seat belt switch connector D-29 (terminal No.3 and 4) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-30 and driver's seat belt switch connector D-29. Then go to Step 6.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

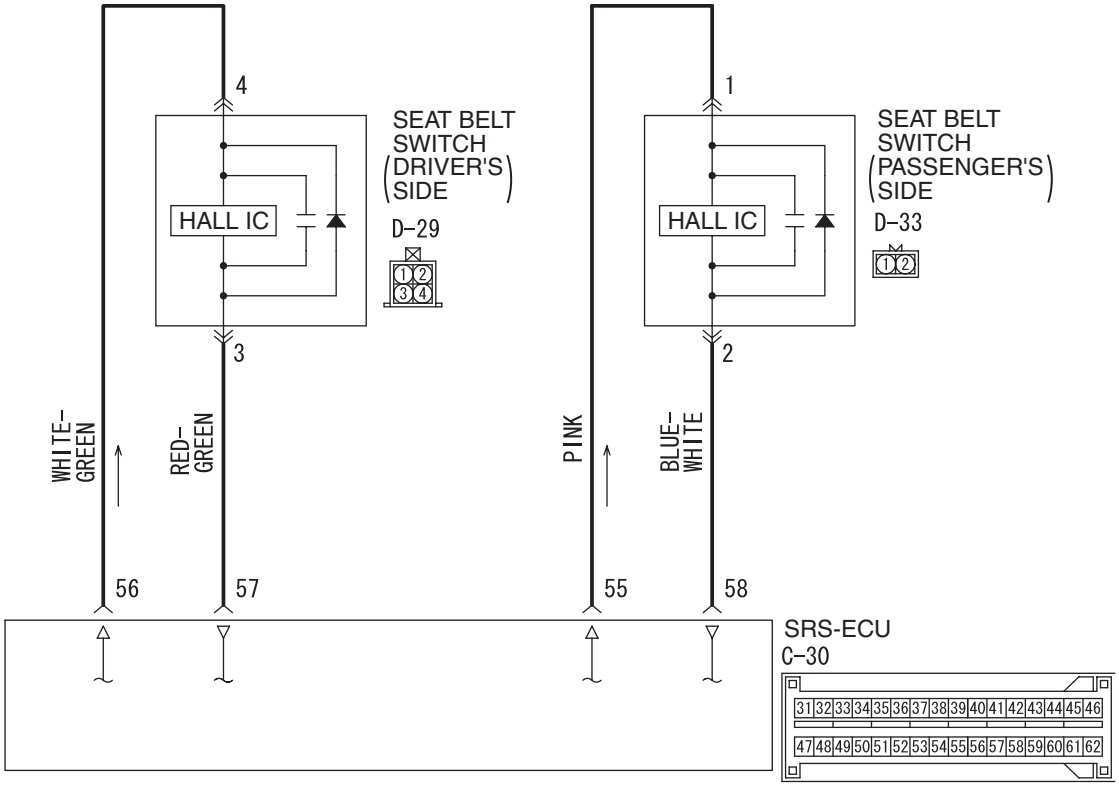
Q: Is DTC B1B50, B1B51 or B1B52 set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1B54: Seat Belt Switch (RH) Circuit (Ground Side) Shorted
DTC B1B55: Seat Belt Switch (RH) Circuit (Power Supply Side) Shorted
DTC B1B56: Seat Belt Switch (RH) Circuit Open

Seat Belt Switch Circuit



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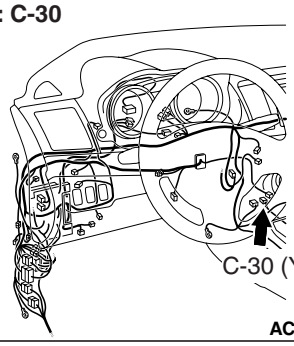
Connector: C-30



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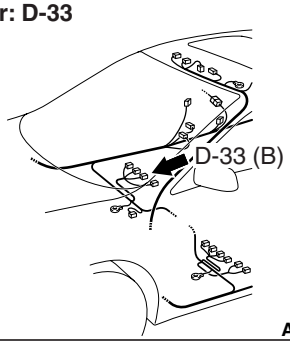
Connector: D-33



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⚠ CAUTION
If DTC B1B54, B1B55 or B1B56 are set in the SRS-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION

The SRS-ECU determines whether the seat belt is fastened or not according to the connection location of the seat belt switch in the seat buckle.

DTC SET CONDITIONS

DTC is set when the resistance between input terminals of the seat belt switch in the SRS-ECU is without the standard value.

TROUBLESHOOTING HINTS

- Malfunction of the seat belt switch
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

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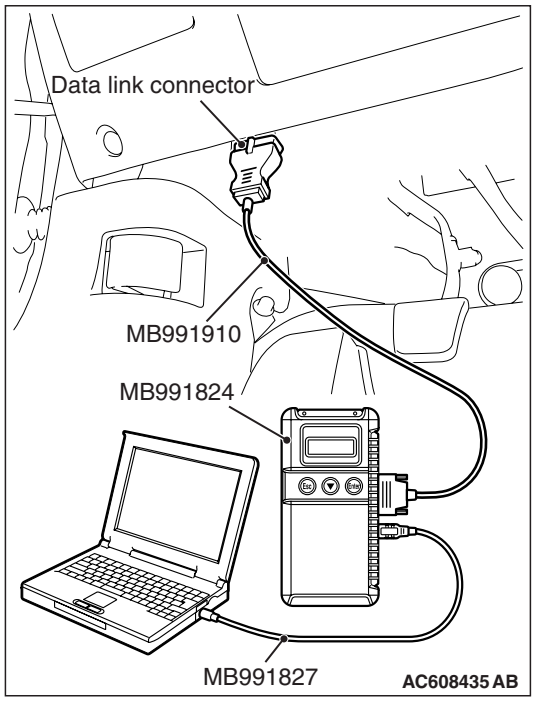
DIAGNOSIS

Required Special Tools:

- MB991222: Probe
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Connect scan tool MB991958 to the data link connector.
(3) Turn the ignition switch to the "ON" position.
(4) Diagnose the CAN bus line.
(5) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

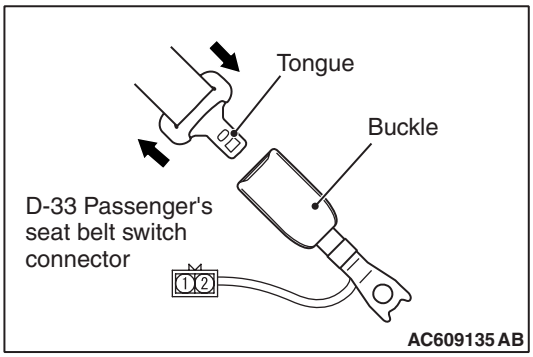
YES : Go to Step 3.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

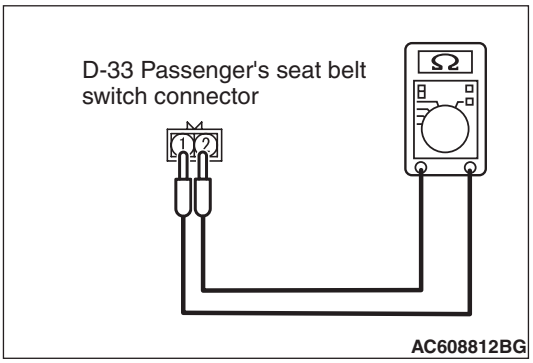
STEP 2. Recheck for diagnostic trouble code.

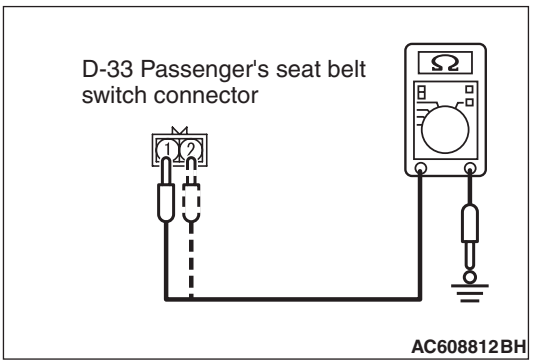
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).







STEP 3. Check the passenger's seat belt switch.

Disconnect passenger's seat belt switch connector D-33. Then check continuity between the switch terminals.

Item	Tester connection	Specified condition
Fastened seat belt	1 –Ground	Open circuit
	2 –Ground	Open circuit
	1 –2	Continuity (Less than 2 Ω)
Unfastened seat belt	1 –Ground	Open circuit
	2 –Ground	Open circuit
	1 –2	Open circuit

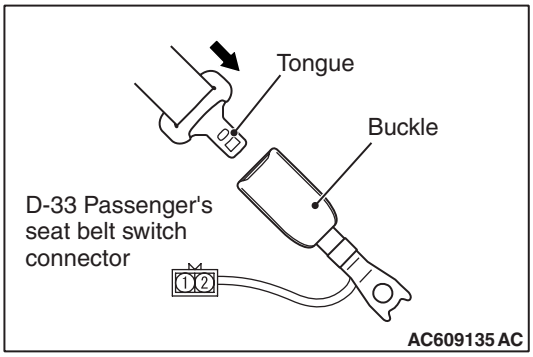
Q: Is passenger's seat belt switch in good condition?

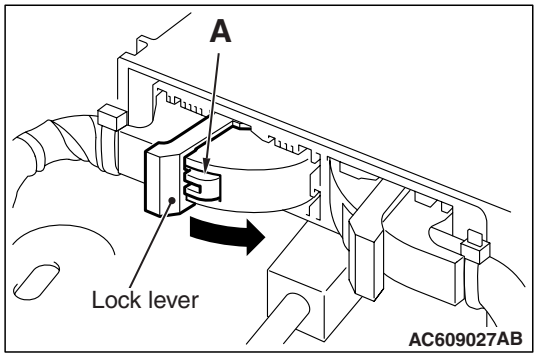
YES : Go to Step 4.

NO : Replace inner seat belt (Refer to GROUP 52A, Front Seat Belt P.52A-29).

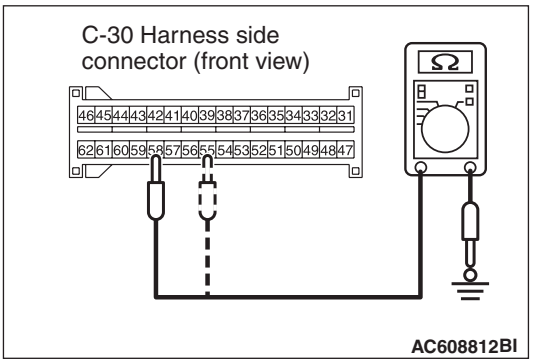
STEP 4. Check the passenger's seat belt switch circuit D-33. Measure the resistance at SRS-ECU connector C-30.

(1) Disconnect passenger's seat belt switch connector D-33.
(2) Install the passenger's seat belt to the passenger's seat belt switch.
(3) Disconnect SRS-ECU connector C-30 and measure at the harness side.

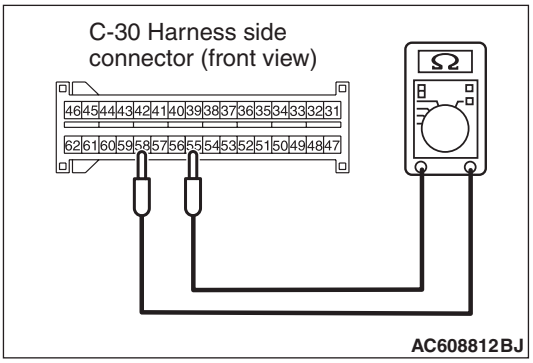




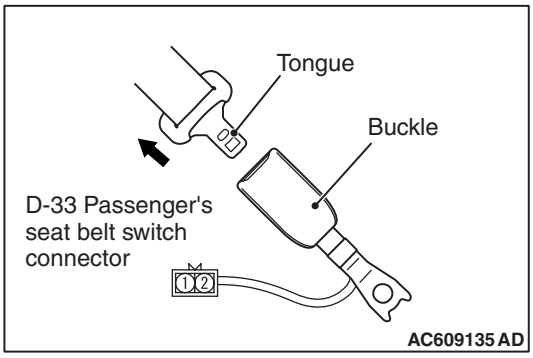
(4) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



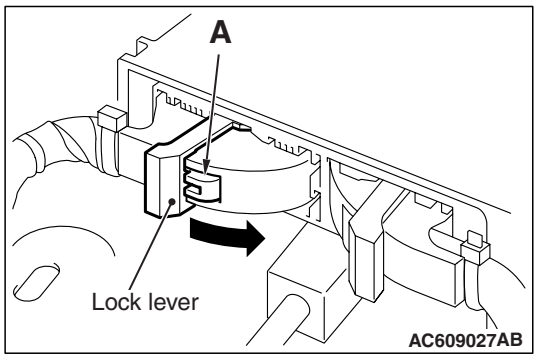
(5) Measure the resistance between terminal 55, 58 and body ground.
It should be an open circuit.



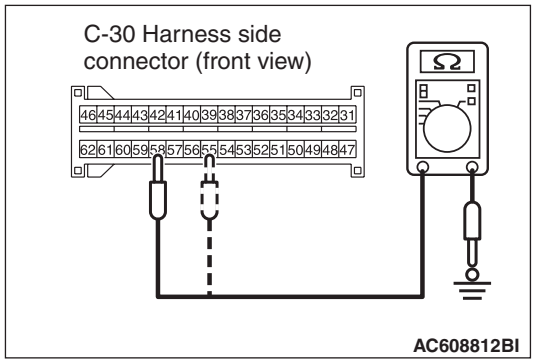
(6) Measure the resistance between terminal 55 and terminal 58.
Resistance should be less than 2 ohms.



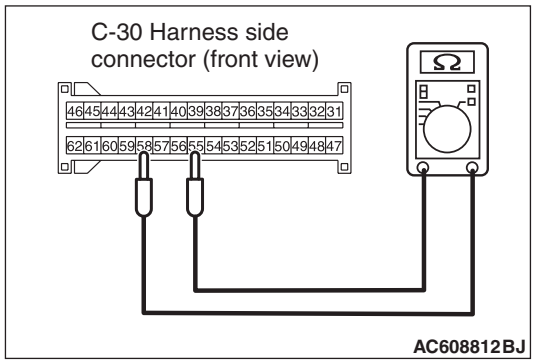
(7) Remove the passenger's seat belt from the passenger's seat belt switch.
(8) Disconnect SRS-ECU connector C-30 and measure at the harness side.



(9) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



(10) Measure the resistance between terminal 55, 58 and body ground.
It should be an open circuit.



(11) Measure the resistance between terminal 55 and terminal 58.
It should be an open circuit.

Q: Does the resistance meet the value above?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B50, B1B51or B1B52 are set, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 6.

NO : Go to Step 5.

STEP 5. Check the harness wires between SRS-ECU connector C-30 (terminal No.55 and 58) and passenger's seat belt switch connector D-33 (terminal No.1 and 2).

Q: Are harness wires between SRS-ECU connector C-30 (terminal No.55 and 58) and passenger's seat belt switch connector D-33 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.
NO : Replace the harness wires between SRS-ECU connector C-30 and passenger's seat belt switch connector D-33. Then go to Step 6.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1B54, B1B55 or B1B56 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1B70: Malfunction of G-sensor inside Front Impact Sensor (LH)
DTC B1B71: Malfunction of G-sensor inside Front Impact Sensor (RH)

⚠ CAUTION
If DTC B1B70 or B1B71 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

These DTCs are set if the following conditions are detected from the analog G-sensor inside the front impact sensor output:

- Analog G-sensor is not operating.
- Analog G-sensor characteristics are abnormal.
- Analog G-sensor output is abnormal.

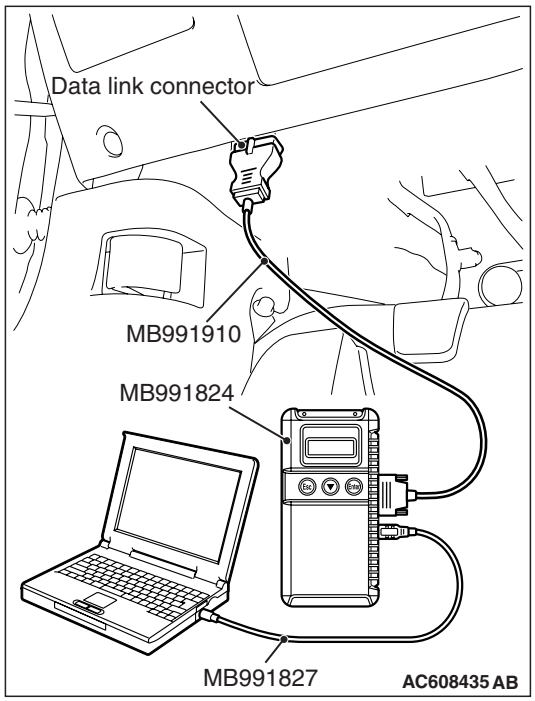
TROUBLESHOOTING HINTS

Malfunction of front impact sensor (LH) (for DTC B1B70) and front impact sensor (RH) (for DTC B1B71)

DIAGNOSIS

Required Special Tool:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunctions P.00-13).

STEP 3. Check the front impact sensor.

Replace the front impact sensor (RH) or front impact sensor (LH) with a new one. (Refer to P.52B-361).
Check the diagnostic trouble code.

Q: Is either DTC B1B70 or B1B71 set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : The procedure is complete.

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DTC B1B72: Malfunction of G-sensor Inside Side Impact Sensor (LH)
DTC B1B75: Malfunction of G-sensor Inside Side Impact Sensor (RH)

⚠ CAUTION
If the diagnostic trouble code B1B72 or B1B75 is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

These DTCs are set if the following conditions are detected from the analog G-sensor inside the side impact sensor output:

- Analog G-sensor is not operating.
- Analog G-sensor characteristics are abnormal.
- Analog G-sensor output is abnormal.

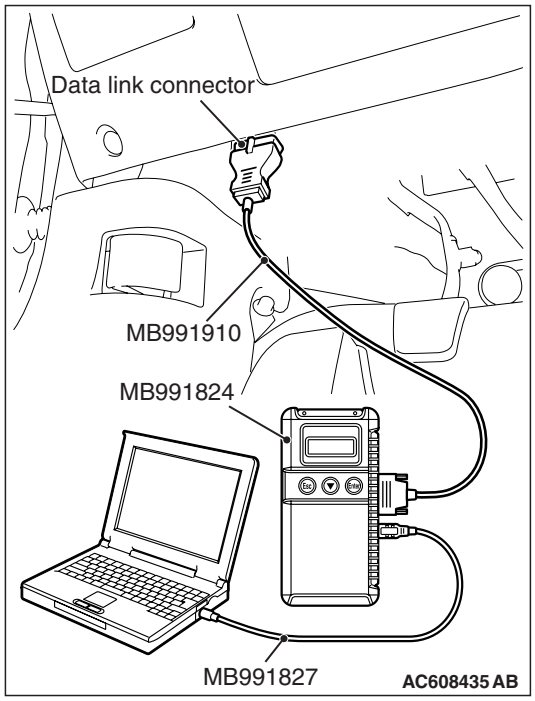
TROUBLESHOOTING HINTS

Malfunction of side impact sensor (LH) (for DTC B1B72) and side impact sensor (RH) (for DTC B1B75)

DIAGNOSTIC PROCEDURE

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points –How to Cope with Intermittent Malfunctions P.00-13).

STEP 3. Check the side impact sensor.
Replace the side impact sensor (RH) or side impact sensor (LH) with a new one. (Refer to P.52B-382).
Check the diagnostic trouble code.

Q: Is either DTC B1B72 or B1B75 set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : The procedure is complete.

DTC B1BA3: Driver's Seat Slide Sensor Malfunction (Occupant Classification-ECU)

⚠ CAUTION
If DTC B1BA3 is set in the Occupant classification-ECU, always diagnose the CAN main bus line.

DTC SET CONDITIONS

These DTCs are set if communication between the occupant classification-ECU and the seat slide sensor is not possible or communication is faulty.

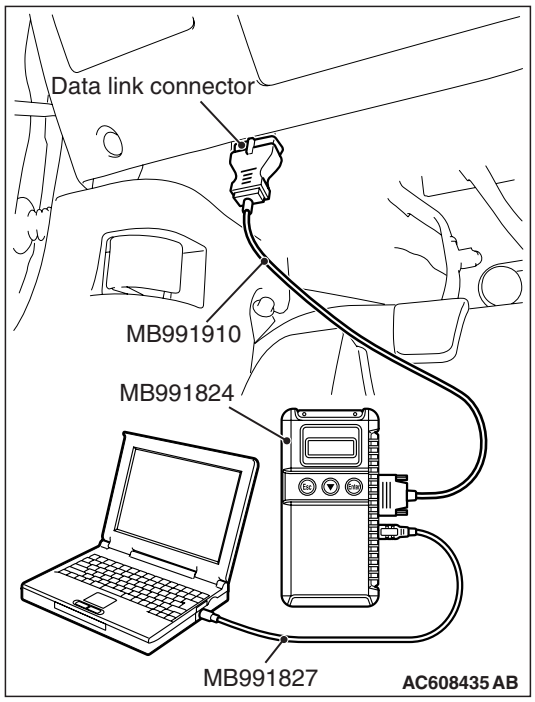
TROUBLESHOOTING HINTS

- Malfunction of the seat slide sensor
- Malfunction of occupant classification-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the occupant classification-ECU diagnostic trouble code.
Check if the DTC is set to the occupant classification-ECU.

Q: Is DTC set?

YES : Diagnose the occupant classification-ECU.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1BA5: SRS-ECU squib count mismatch

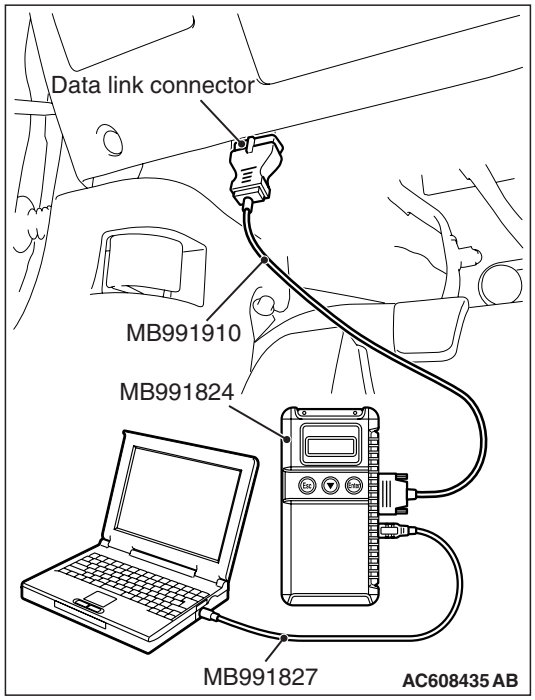
⚠ CAUTION
If DTC B1BA5 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION
SRS-ECU monitors the resistance value of each squib circuit on the vehicle. If any of the resistance values is outside the normal range, SRS-ECU sets the DTC.

DTC SET CONDITIONS
- If an SRS-ECU different from the unit compatible to vehicle is accidentally installed, this DTC will be set (If SRS-ECU for the vehicles with side-air-bag is installed to the vehicles without side-air-bag. However, the DTC is not set in the reverse case).
- If an open circuit occurs to the squib circuit, this DTC will be set.

TROUBLESHOOTING HINTS
- SRS-ECU incorrect installation
- Squib specification mismatch

DIAGNOSIS
Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Check the open circuit for each squib circuit.
NO : Go to Step 3

STEP 3. Recheck for diagnostic trouble code

Q: Is DTC B1BA5 set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1BAA: Occupant Classification-ECU Configuration Mismatch

⚠ CAUTION

- **If the DTC B1BAA is set, diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

If the information data and coding data on occupant classification-ECU do not suit. The SRS-ECU sets the DTC B1BAA

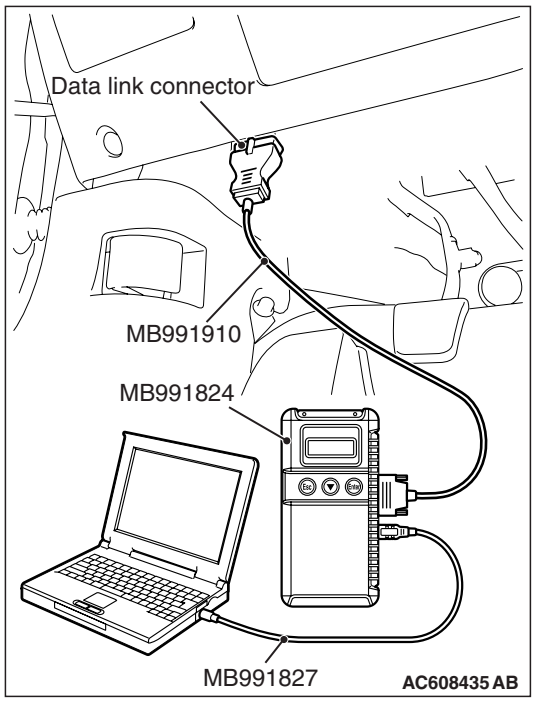
TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The ETACS-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the ETACS-ECU diagnostic trouble code

Check if DTC is set to the ETACS-ECU.

Q: Is the DTC set?

YES : Diagnose the ETACS-ECU.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-13).

DTC B1BC7: SRS-ECU (Record Data Full) System

⚠ CAUTION
If the diagnostic trouble code B1BC7 is set to SRS-ECU, always diagnose the CAN main bus line.

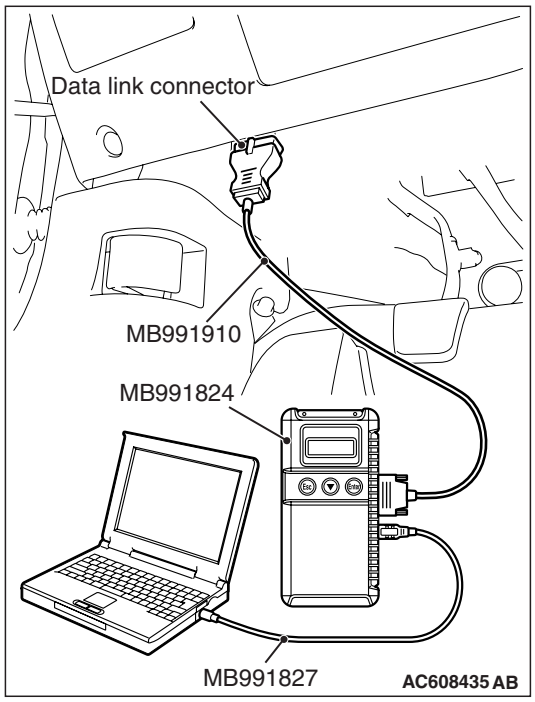
CIRCUIT OPERATION
If SRS-ECU determines that a collision has occurred, it sends the ignition current to deploy the air bag. It stores the deployment status. If this DTC is set, SRS-ECU determines that the air bag has been deployed.

DTC SET CONDITIONS
This DTC is set after the air bag deployment. If this DTC is set before the air bag is deployed, an internal failure may have occurred in SRS-ECU.

TROUBLESHOOTING HINTS
Malfunction of SRS-ECU

DIAGNOSIS

Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.
(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

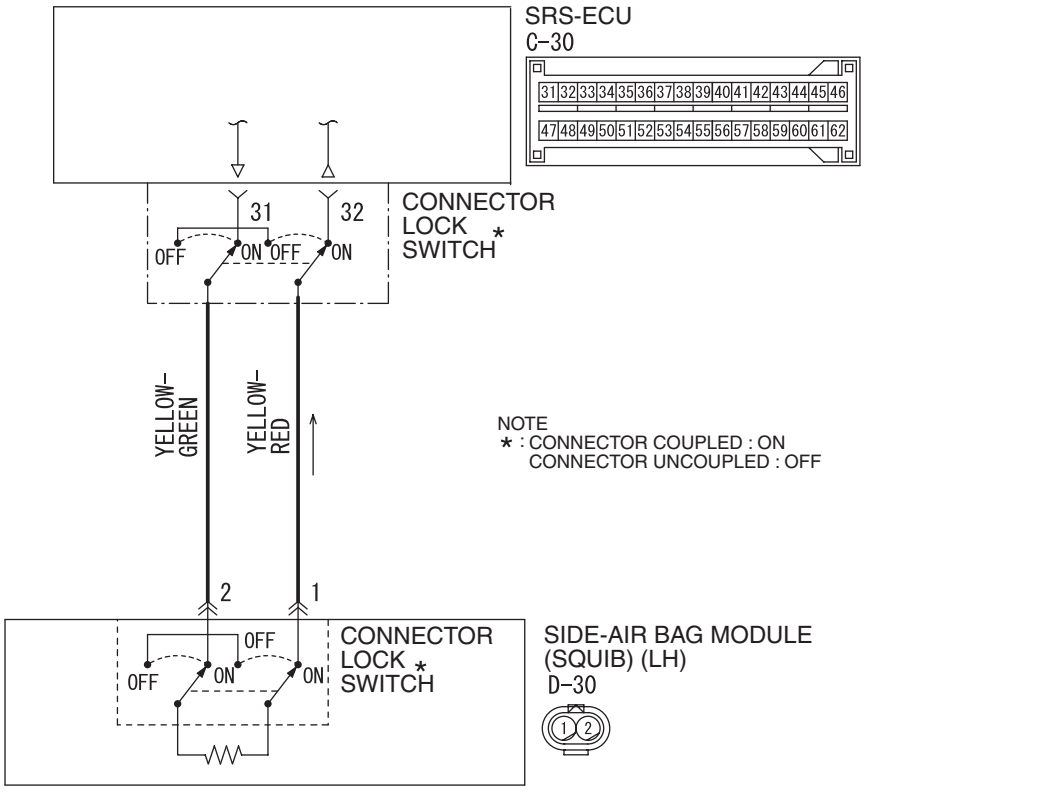
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

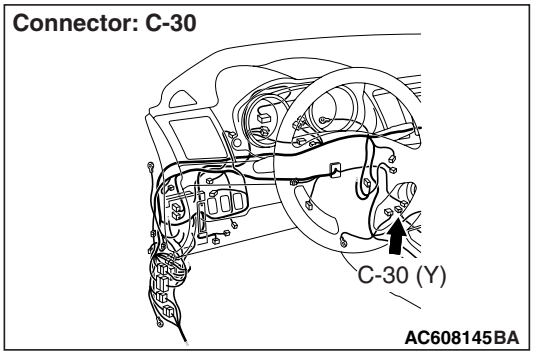
Q: Is the DTC set?

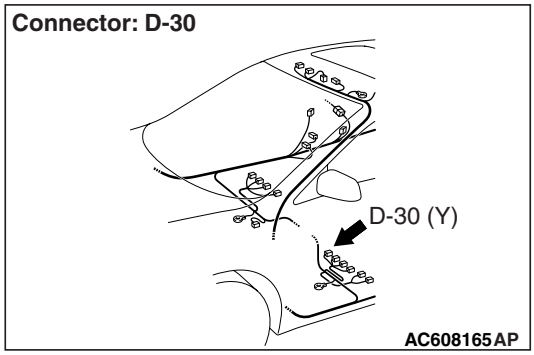
YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1C27: Side-airbag Module (LH) (Squib) System (Shorted to Squib Circuit Ground)

Side-airbag Module (Squib) (LH) Circuit







⚠ CAUTION
If DTC B1C27 is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

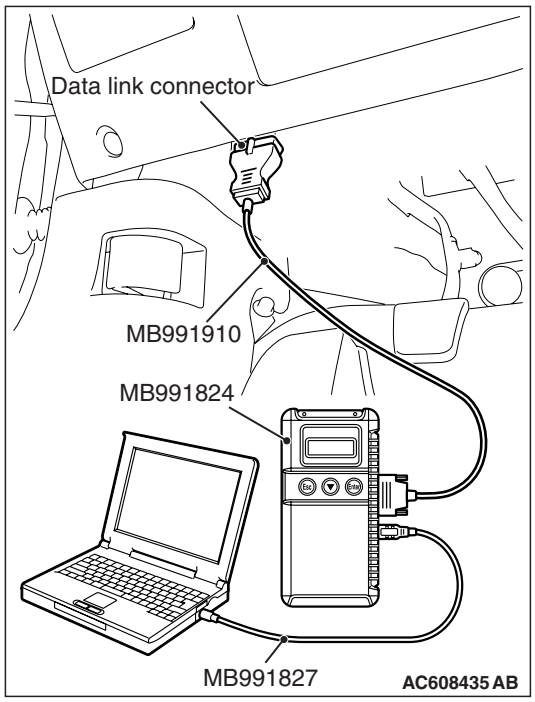
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to ground in the left hand side-airbag module (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

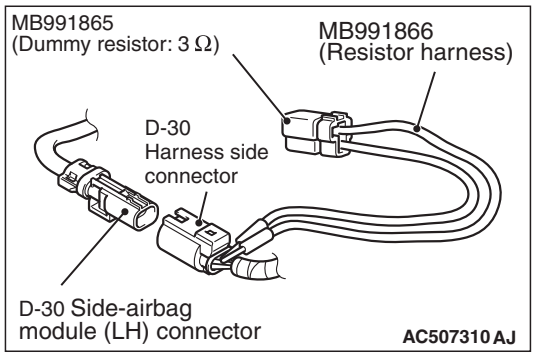
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).



STEP 3. Check the side-airbag module (LH).

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (LH) connector D-30.
(3) Connect special tool MB991865 to special tool MB991866.

⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into the D-30 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

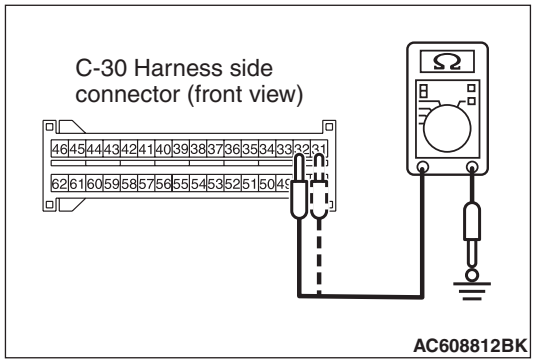
Q: Is DTC B1C27 set?

YES : Go to Step 4.
NO : Replace the front seatback frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21). Then go to Step 6.

STEP 4. Check the side-airbag module (LH) circuit. Measure the resistance at the SRS-ECU connector C-30.

(1) Disconnect SRS-ECU connector C-30.
(2) Disconnect side-airbag module (LH) connector D-30.

⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.



(3) Check for continuity between C-30 harness side connector terminals 31, 32 and body ground.
It should be an open circuit.

Q: Does continuity exist?

YES : Go to Step 5.
NO : Erase the diagnostic trouble code from memory, and check the diagnostic trouble code. If DTC B1C27 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 6.

STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-30 (terminal No.31 and 32) and side-airbag module (LH) connector D-30 (terminal No.2 and 1).

Q: Are the harness wires between SRS-ECU connector C-30 (terminal No.31 and 32) and side-airbag module (LH) connector D-30 (terminal No.2 and 1) in good condition?

YES : Go to Step 6.
NO : Replace the harness wires between SRS-ECU connector C-30 and side-airbag module (LH) connector D-30. Then go to Step 6.

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STEP 6. Recheck for diagnostic trouble code.

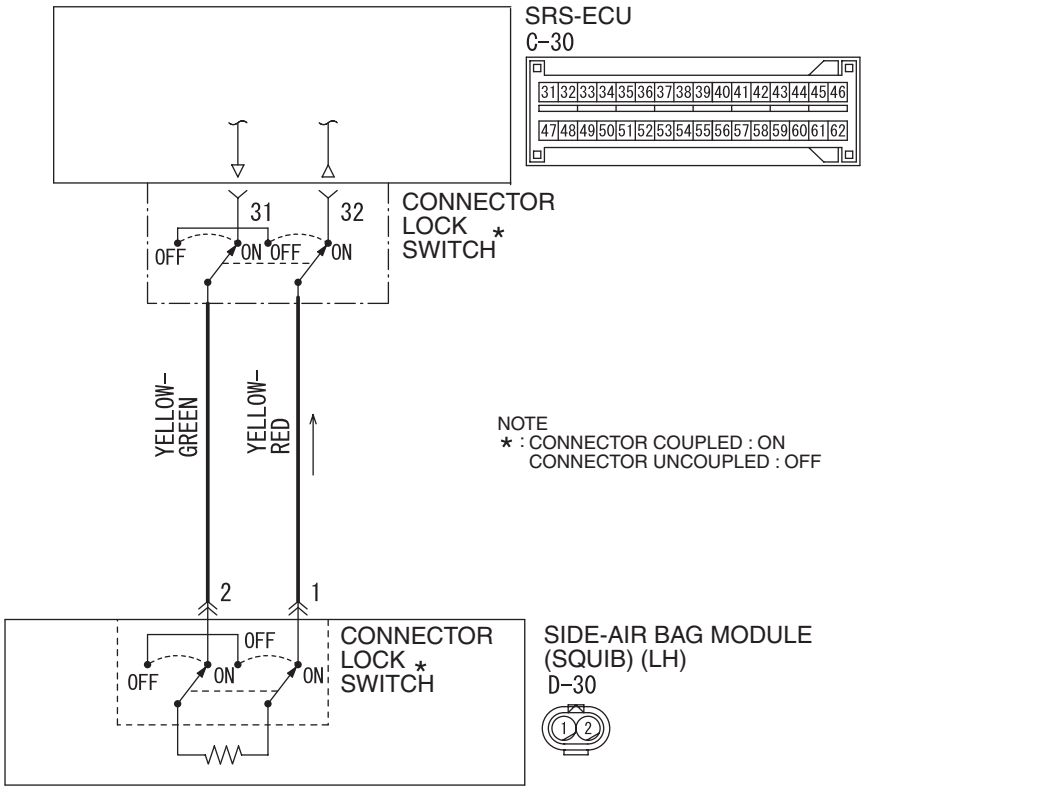
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1C27 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1C28: Side-airbag Module (LH) (Squib) System (Shorted to Squib Circuit Power Supply)

Side-airbag Module (Squib) (LH) Circuit



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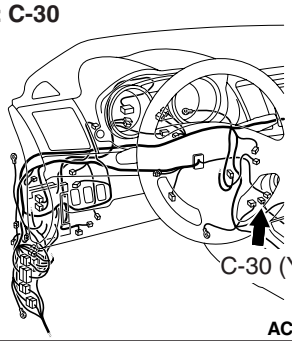
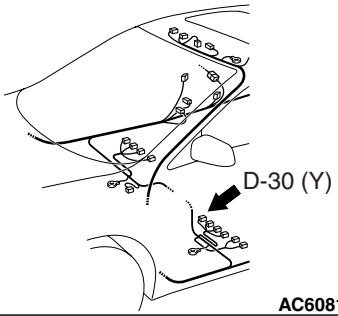
Connector: C-30



AC608145BA

Connector: D-30



AC608165AP

TSB Revision

⚠ CAUTION
If DTC B1C28 is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to the power supply in the side-airbag module (LH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness

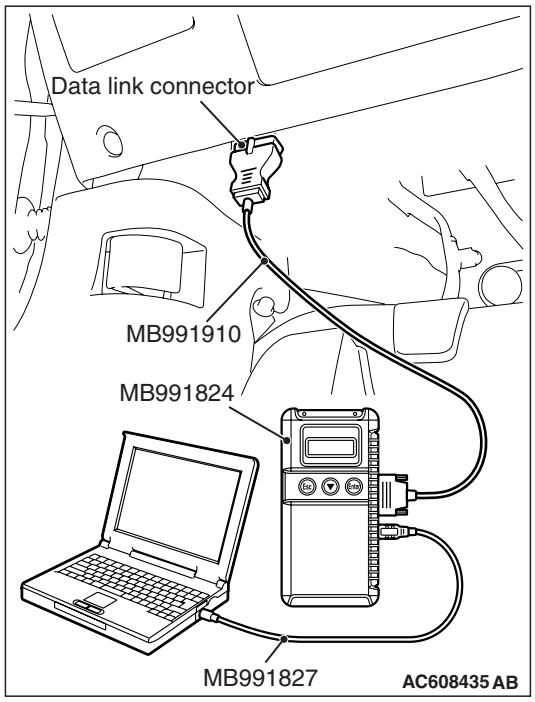
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

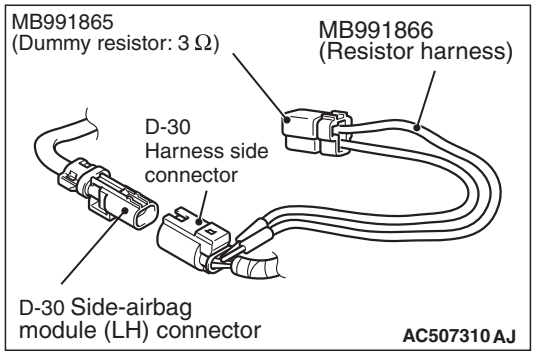
Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check the side-airbag module (LH).

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (LH) connector D-30.
(3) Connect special tool MB991865 to special tool MB991866.



⚠ CAUTION

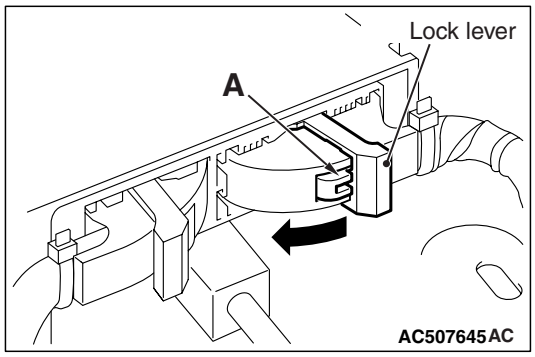
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

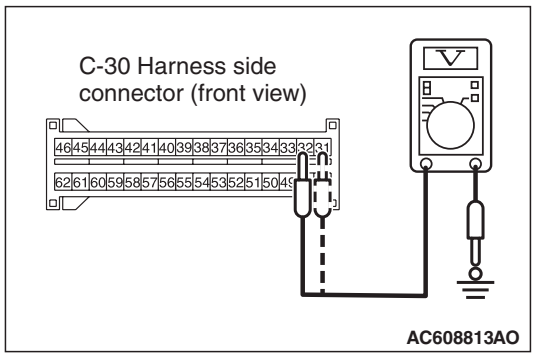
(4) Insert special tool MB991866 into the D-30 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C28 set?

YES : Go to Step 4.

NO : Replace the front seatback frame (Refer to 52A, Front Seat Assembly P.52A-21). Then go to Step 6.





STEP 4. Check the side-airbag module (LH) circuit.
Measure the voltage at the SRS-ECU connector C-30.

(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.

⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-30 to short the squib circuit.

(2) Disconnect left hand side-airbag module (LH) connector D-30.
(3) Turn the ignition switch to the "ON" position.

⚠ **CAUTION**

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Measure the voltage between C-30 harness side connector terminals 31, 32 and body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage 0 volt?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C28 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 6.
NO : Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-30 (terminal No.31 and 32 and side-airbag module (LH) connector D-30 (terminal No.2 and 1).

Q: Are the harness wires between SRS-ECU connector C-30 (terminal No.31 and 32) and side-airbag module (LH) connector D-30 (terminal No.2 and 1) in good condition?

YES : Go to Step 6.
NO : Replace the harness wires between SRS-ECU connector C-30 and side-airbag module (LH) connector D-30. Then go to Step 6.

STEP 6. Recheck for diagnostic trouble code.

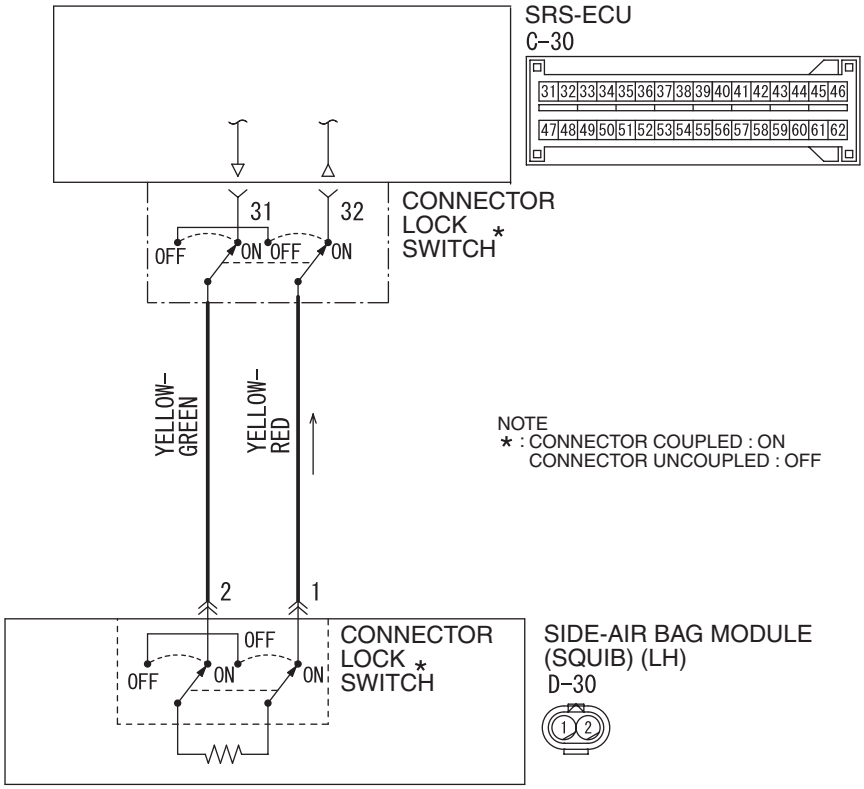
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1C28 set?

YES : Return to Step 1.
NO : The procedure is complete.

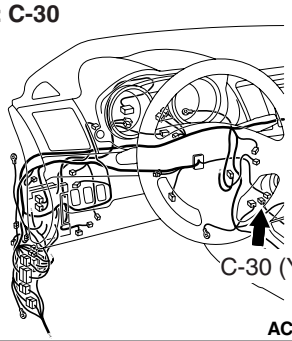
DTC B1C29: Side-airbag Module (LH) (Squib) System (Squib Circuit Open)

Side-airbag Module (Squib) (LH) Circuit



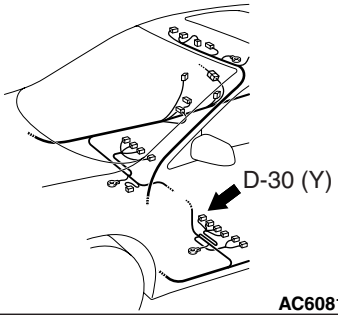
W8G52M009A

Connector: C-30



AC608145BA

Connector: D-30



AC608165AP

⚠ CAUTION
If DTC B1C29 is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

TROUBLESHOOTING HINTS

- Open circuit in the side-airbag module (squib) (LH) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

TSB Revision

DIAGNOSIS

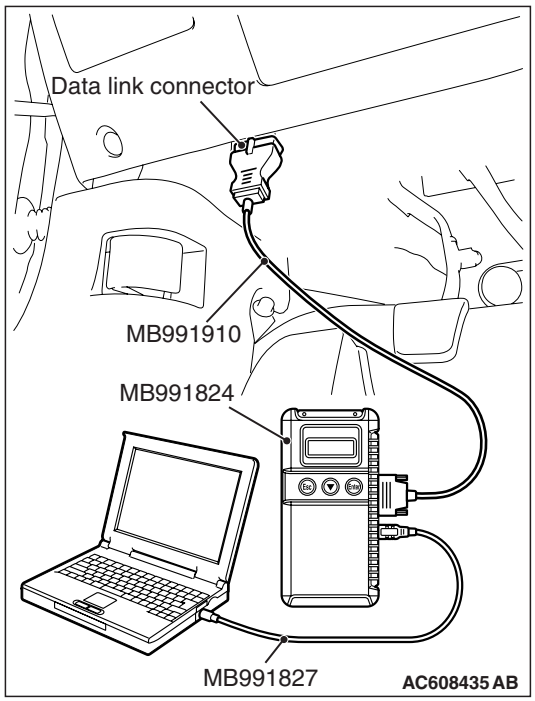
Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.



(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

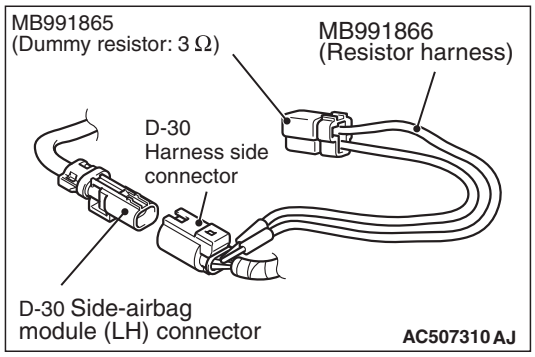
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).



STEP 3. Check the side-airbag module (LH).

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (LH) connector D-30.
(3) Connect special tool MB991865 to special tool MB991866.

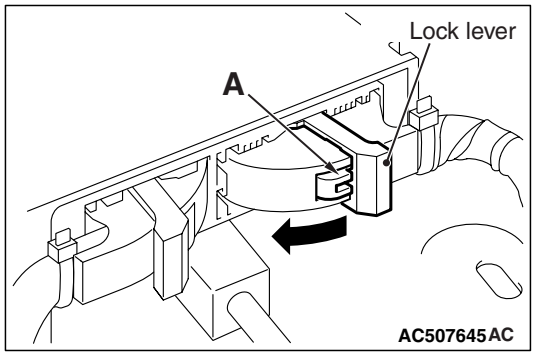
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into the D-30 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

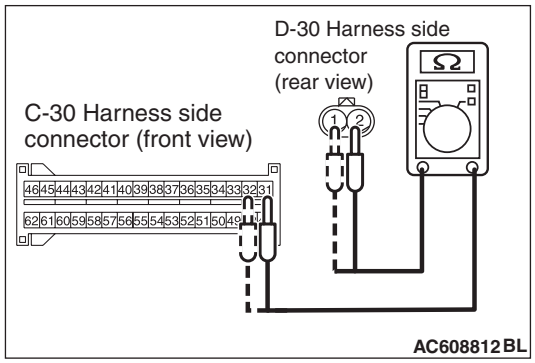
Q: Is DTC B1C29 set?

YES : Go to Step 4.
NO : Replace the front seatback frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21). Then go to Step 5.

STEP 4. Check the harness for open circuit between the SRS-ECU connector C-30 (terminal No.31 and 32) and the side-airbag module (LH) connector D-30 (terminal No.2 and 1).



(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.
(2) Disconnect side-airbag module (LH) connector D-30.



⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(3) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-30 (terminal No.31) and the side-airbag module (LH) connector D-30 (terminal No.2)
- SRS-ECU connector C-30 (terminal No.32) and the side-airbag module (LH) connector D-30 (terminal No.1)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C29 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 5.
NO : Replace the harness wires between SRS-ECU connector C-30 and side-airbag module (LH) connector D-30. Then go to Step 5.

TSB Revision

STEP 5.Recheck for diagnostic trouble code.

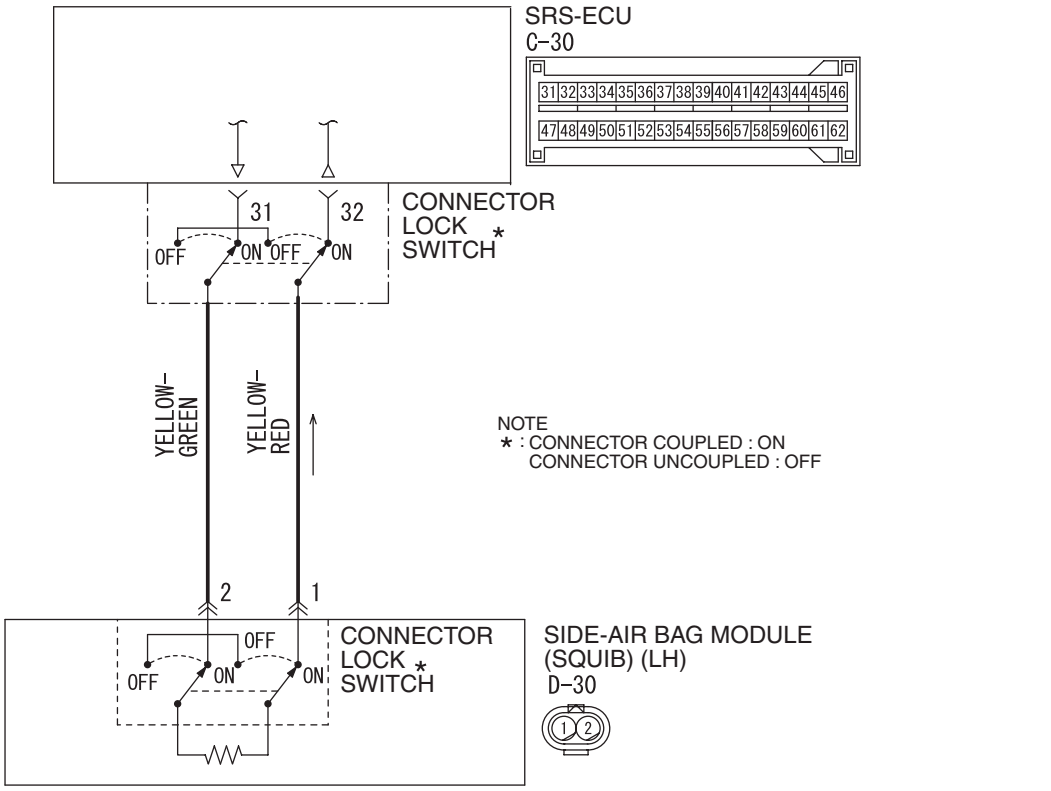
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1C29 set?

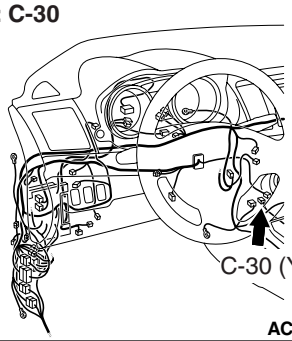
YES : Return to Step 1.
NO : The procedure is complete.

DTC B1C2A: Side-airbag Module (LH) (Squib) System (Short Circuit between Squib Circuit Terminals)

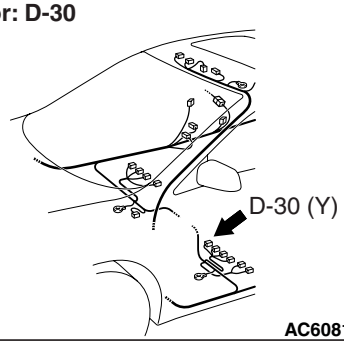
Side-airbag Module (Squib) (LH) Circuit



Connector: C-30



Connector: D-30



TSB Revision

⚠ CAUTION
If DTC B1C2A is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (LH) (squib).

TROUBLESHOOTING HINTS

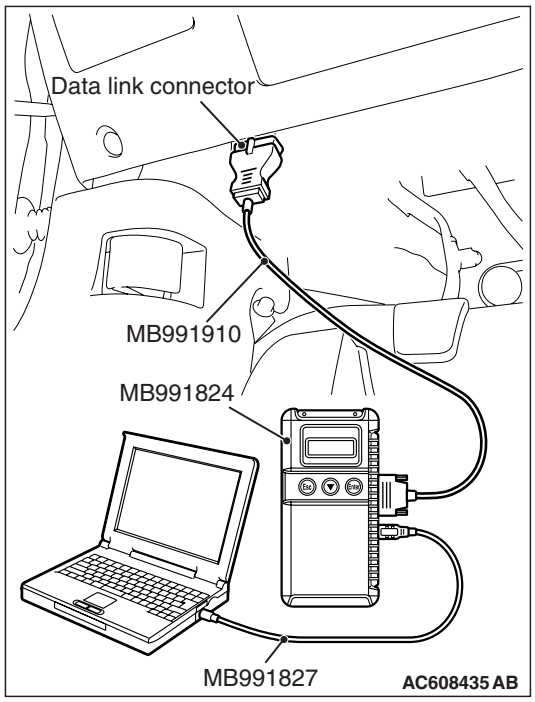
- Improper engaged connector or defective short spring*
- Short circuit between the side-airbag module (LH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-30 or D-30 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Connect scan tool MB991958 to the data link connector.
(3) Turn the ignition switch to "ON" position.
(4) Diagnose the CAN bus line.

Q: Is the check result satisfactory?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

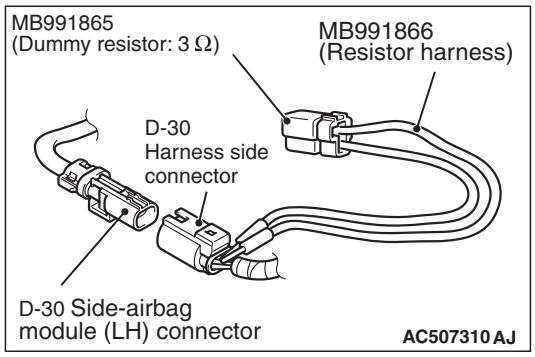
STEP 3. Check SRS-ECU connector C-30 and side-airbag module (LH) connector D-30.

(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-30 and D-30, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C2A out put?

YES : Go to Step 4.
NO : The procedure is complete. It is assumed that DTC B1C2A set because connector C-30 or D-30 was engaged improperly.

TSB Revision



STEP 4. Check the side-airbag module (LH).

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (LH) connector D-30.
(3) Connect special tool MB991865 to special tool MB991866.

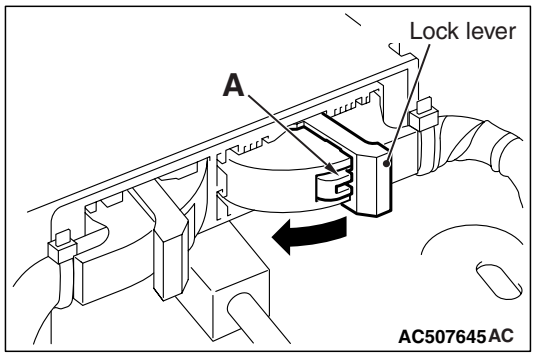
⚠ CAUTION

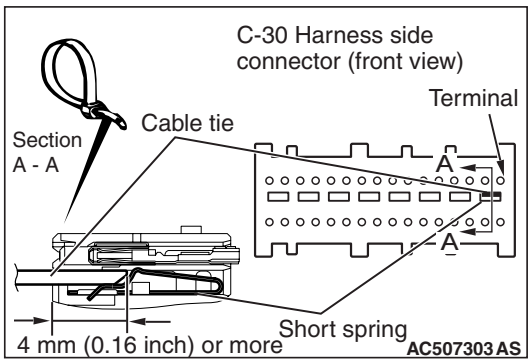
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

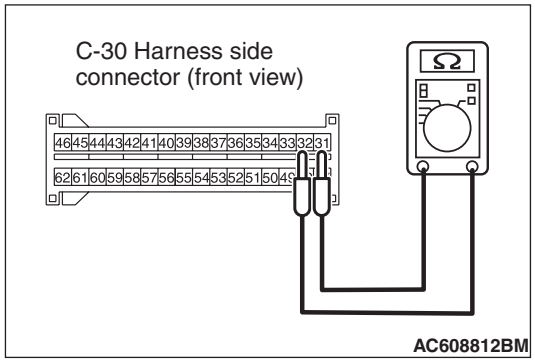
(4) Insert special tool MB991866 into the D-30 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C2A set?

YES : Go to Step 5.
NO : Replace the front seatback frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21). Then go to Step 7.







STEP 5. Check the side-airbag module (LH) circuit. Measure the resistance at the SRS-ECU connector C-30.

(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.

⚠ *DANGER*

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (LH) connector D-30 to short the squib circuit.

(2) Disconnect left hand side-airbag module (LH) connector D-30.

⚠ CAUTION

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 31, 32 and the short spring to release the short spring.

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Check for continuity between C-30 harness side connector terminals 31 and 32.
It should be an open circuit.

Q: Is the circuit normal?

YES : Go to Step 6.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2A sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 7.

STEP 6. Check the harness wires for short circuit between SRS-ECU connector C-30 (terminal No.31 and 32) and side-airbag module (LH) connector D-30 (terminal No.2 and 1).

Q: Are the harness wires between SRS-ECU connector C-30 (terminal No.31 and 32) and side-airbag module (LH) connector D-30 (terminal No.2 and 1) in good condition?

YES : Go to Step 7.

NO : Replace the harness wires between SRS-ECU connector C-30 and side-airbag module (LH) connector D-30. Then go to Step 7.

TSB Revision

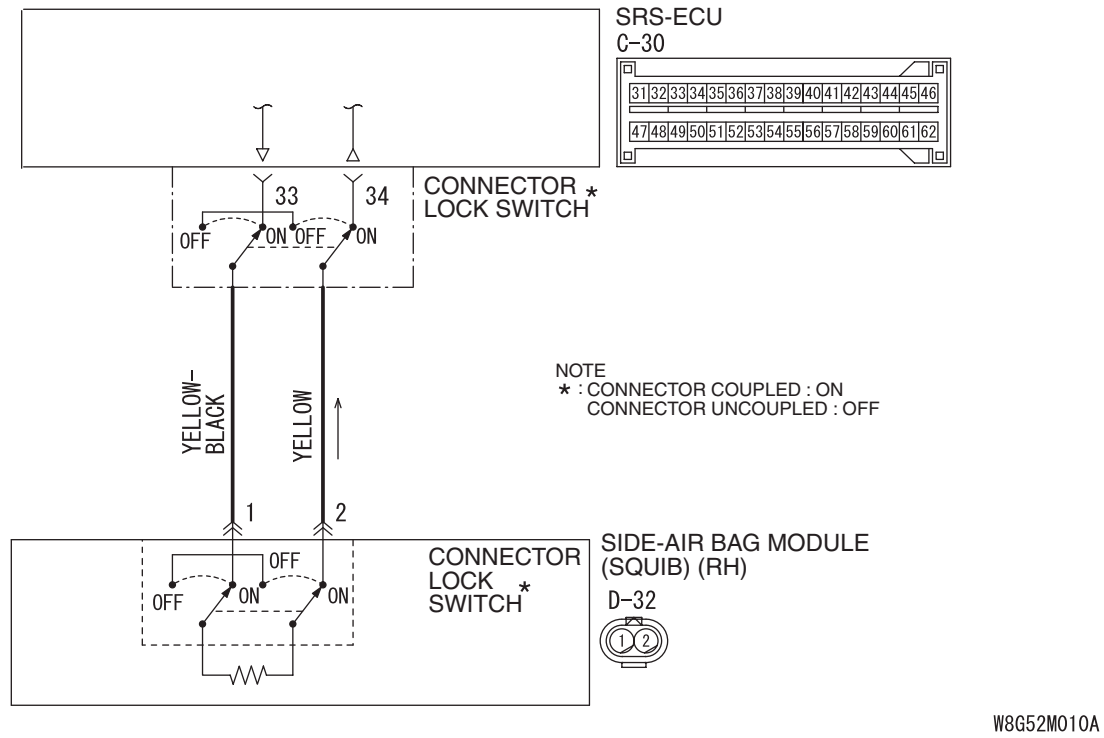
STEP 7. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1C2A set?

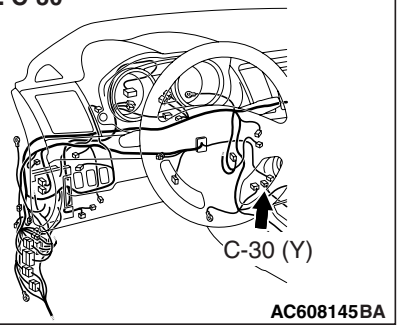
YES : Return to Step 1.
NO : The procedure is complete.

DTC B1C2B: Side-airbag Module (RH) (Squib) System (Shorted to Squib Circuit Ground)

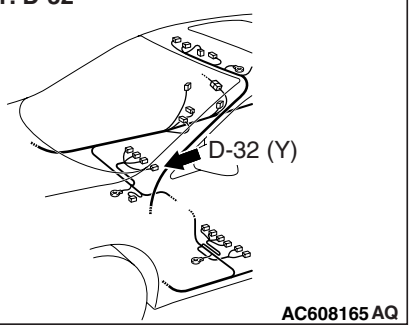
Side-airbag Module (Squib) (RH) Circuit



Connector: C-30



Connector: D-32



⚠ CAUTION
If DTC B1C2B is set in the SRS-ECU, always diagnose the CAN bus lines.

TSB Revision

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (RH) (squib).

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to ground in the side-airbag module (RH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

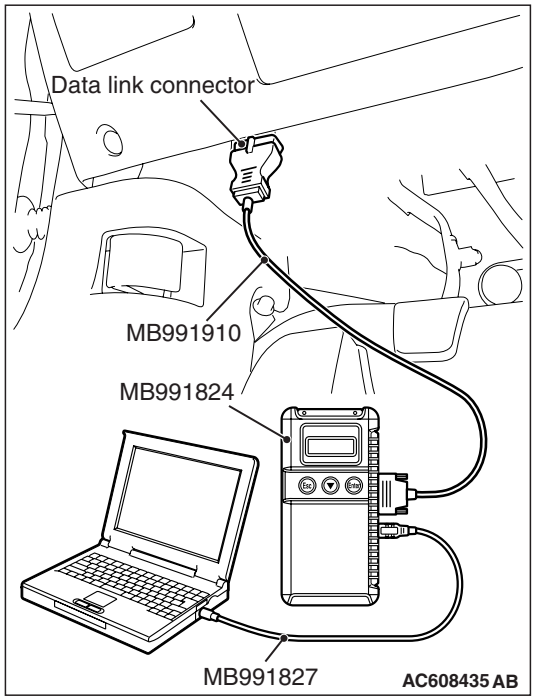
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

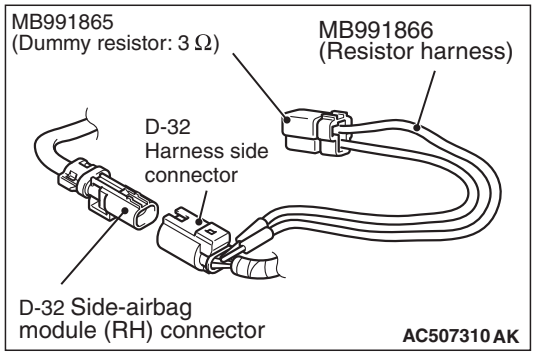
Q: Is the DTC set?

YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check the side-airbag module (RH).

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (RH) connector D-32.
(3) Connect special tool MB991865 to special tool MB991866.



⚠ CAUTION

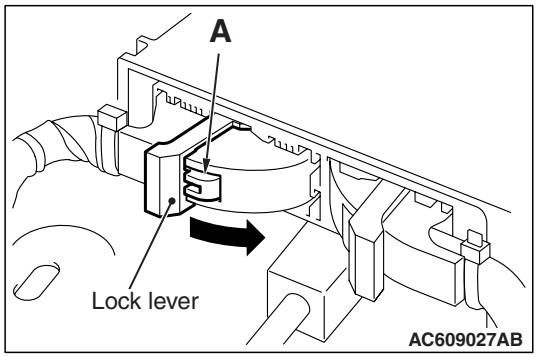
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

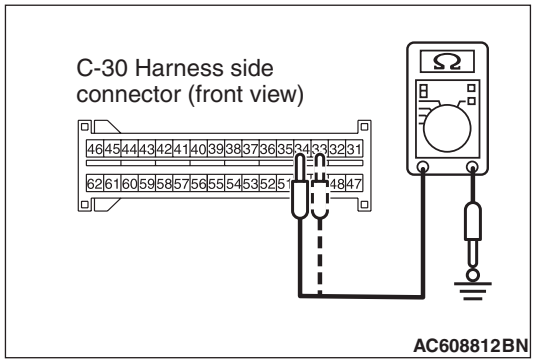
(4) Insert special tool MB991866 into the D-32 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C2B set?

YES : Go to Step 4.

NO : Replace the front seatback frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21). Then go to Step 6.





STEP 4. Check the side-airbag module (RH) circuit.
Measure the resistance at the SRS-ECU connector C-30.

(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.

⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-32 to short the squib circuit.

(2) Disconnect side-airbag module (RH) connector D-32.

⚠ **CAUTION**

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(3) Check for continuity between C-30 harness side connector terminals 33, 34 and body ground.
It should be an open circuit.

Q: Does continuity exist?

YES : Go to Step 5.
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2B sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 6.

STEP 5. Check the harness wires for short circuit to ground between SRS-ECU connector C-30 (terminal No.33 and 34) and side-airbag module (RH) connector D-32 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-30 (terminal No.33 and 34) and side-airbag module (RH) connector D-32 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.
NO : Replace the harness wires between SRS-ECU connector C-30 and side-airbag module (RH) connector D-32. Then go to Step 6.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

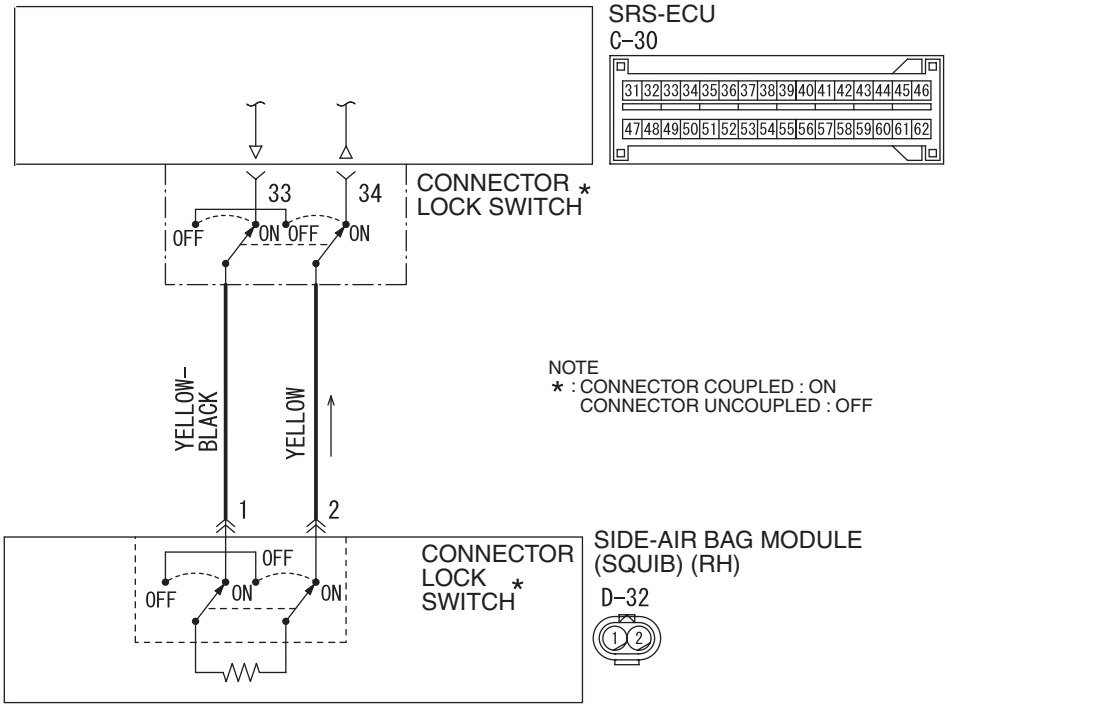
Q: Is DTC B1C2B set?

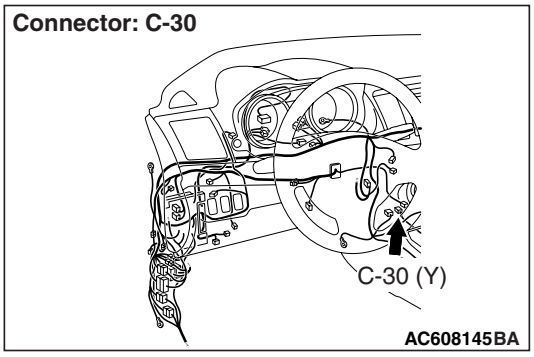
YES : Return to Step 1.
NO : The procedure is complete.

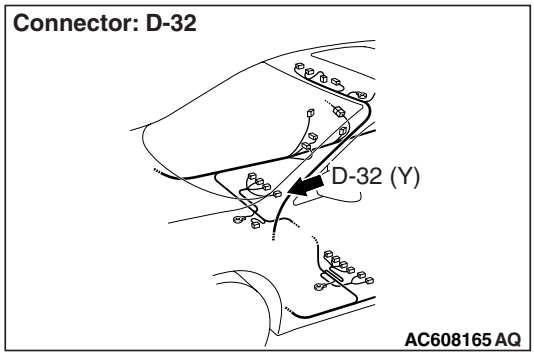
TSB Revision

DTC B1C2C: Side-airbag Module (RH) (Squib) System (Shorted to Squib Circuit Power Supply)

Side-airbag Module (Squib) (RH) Circuit







⚠ CAUTION
If DTC B1C2C is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (RH) (squib).

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to the power supply in the side-airbag module (RH) (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

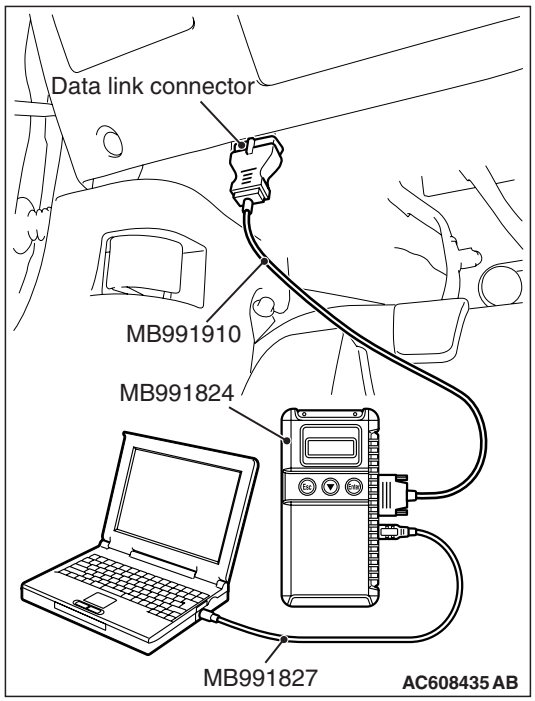
Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.



(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

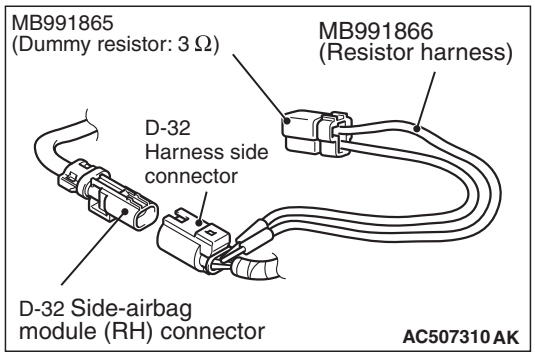
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).



STEP 3. Check the side-airbag module (RH).

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (RH) connector D-32.
(3) Connect special tool MB991865 to special tool MB991866.

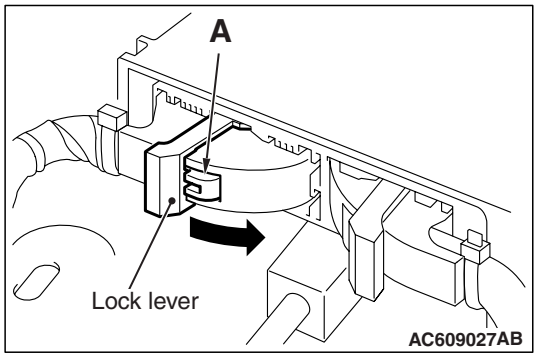
⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into the D-32 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C2C set?

YES : Go to Step 4.
NO : Replace the front seatback frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21). Then go to Step 5.



STEP 4. Check the side-airbag module (RH) circuit.
Measure the voltage at the SRS-ECU connector C-30.

(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.

⚠ DANGER

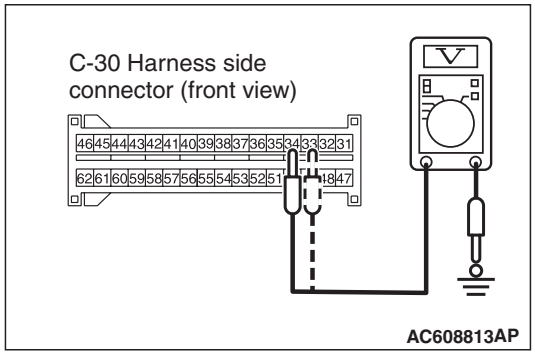
To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-32 to short the squib circuit.

(2) Disconnect side-airbag module (RH) connector D-32.
(3) Turn the ignition switch to the "ON" position.

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Measure the voltage between C-30 harness side connector terminals 33 and 34 and body ground.
Voltage should measure 0 volt.



Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2C sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 6.
NO : Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-30 (terminal No.33 and 34) and side-airbag module (RH) connector D-32 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-30 (terminal No.33 and 34) and side-airbag module (RH) connector D-32 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-30 and side-airbag module (RH) connector D-32. Then go to Step 6.

STEP 6. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

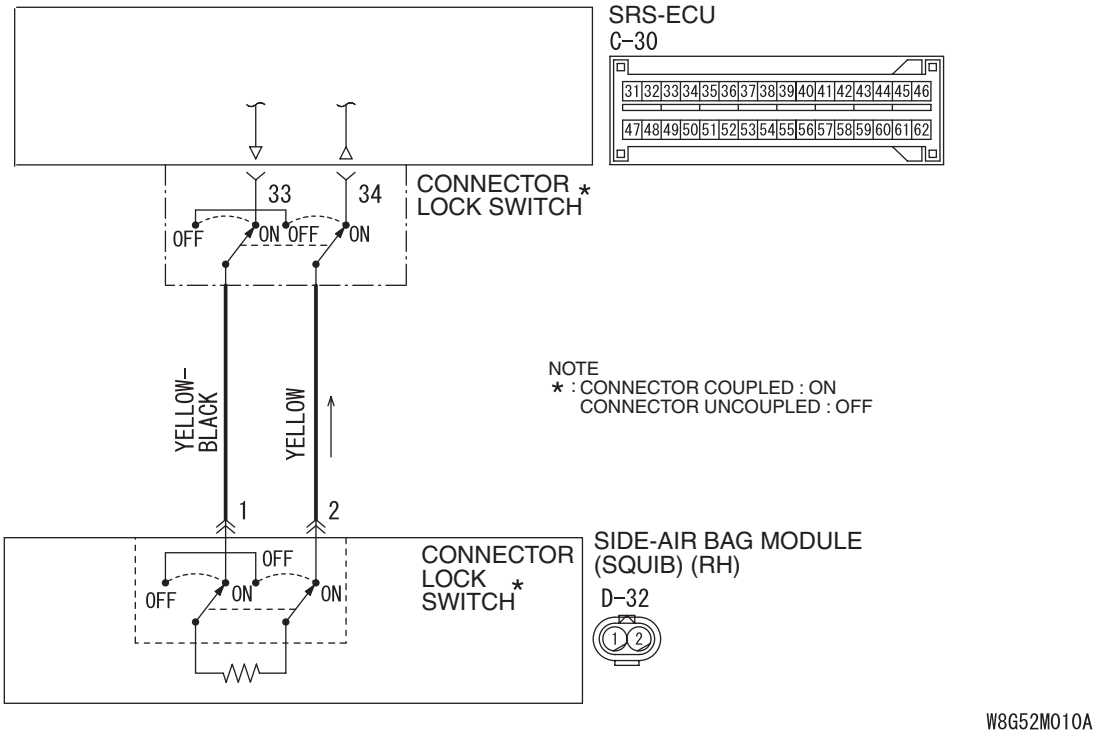
Q: Is DTC B1C2C set?

YES : Return to Step 1.

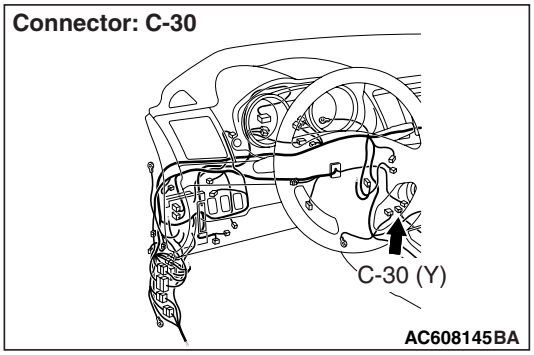
NO : The procedure is complete.

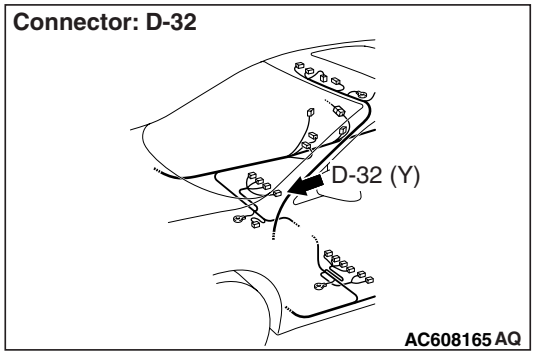
DTC B1C2D: Side-airbag Module (RH) (Squib) System (Squib Circuit Open)

Side-airbag Module (Squib) (RH) Circuit



TSB Revision





⚠ CAUTION

If DTC B1C2D is set in the SRS-ECU, always diagnose the CAN bus lines.

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (RH) (squib).

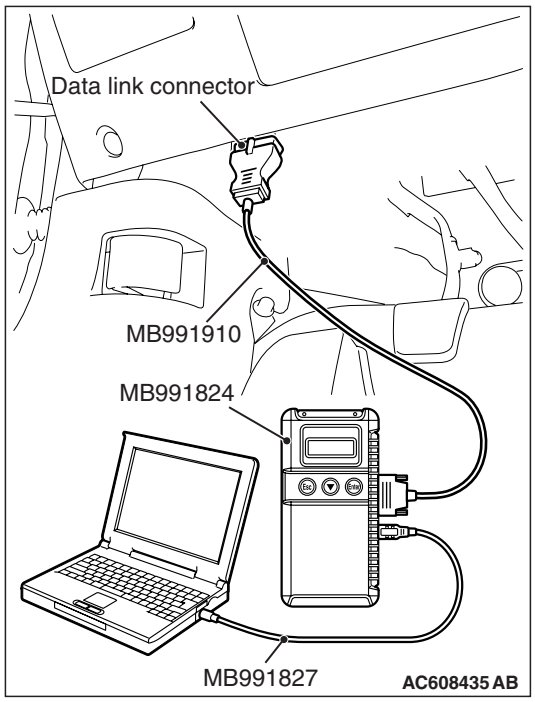
TROUBLESHOOTING HINTS

- Open circuit in the side-airbag module (RH) (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991866: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

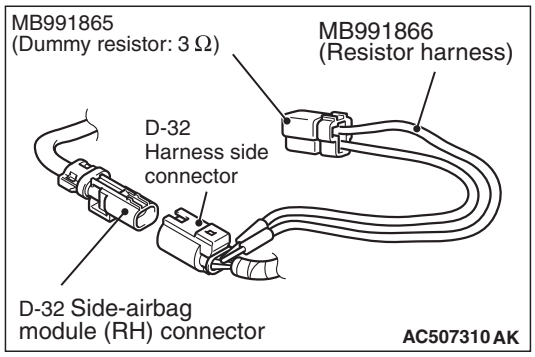
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).



STEP 3. Check the side-airbag module (RH).

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (RH) connector D-32.
(3) Connect special tool MB991865 to special tool MB991866.

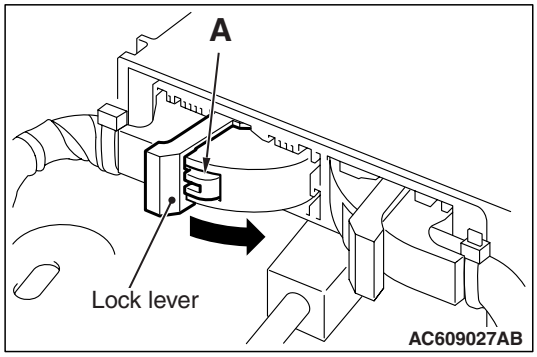
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Insert special tool MB991866 into the D-32 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

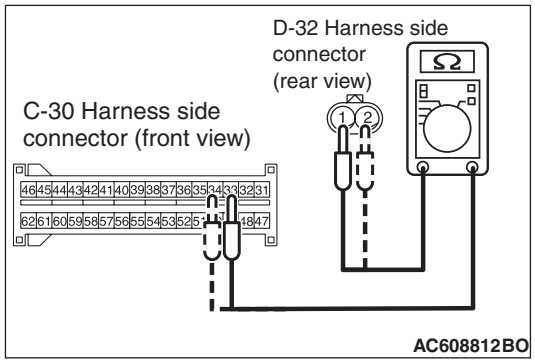
Q: Is DTC B1C2D set?

YES : Go to Step 4.
NO : Replace the front seatback frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21). Then go to Step 5.

STEP 4. Check the harness for open circuit between SRS-ECU connector C-30 (terminal No.33 and 34) and the side-airbag module (RH) connector D-32 (terminal No.1 and 2).



(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.
(2) Disconnect SRS-ECU connector C-30 and side-airbag module (RH) connector D-32.



⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(3) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-30 (terminal No.33) and the side-airbag module (RH) connector D-32 (terminal No.1)
- SRS-ECU connector C-30 (terminal No.34) and the side-airbag module (RH) connector D-32 (terminal No.2)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2D sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 5.
NO : Replace the harness wires between SRS-ECU connector C-30 and side-airbag module (RH) connector D-32. Then go to Step 5.

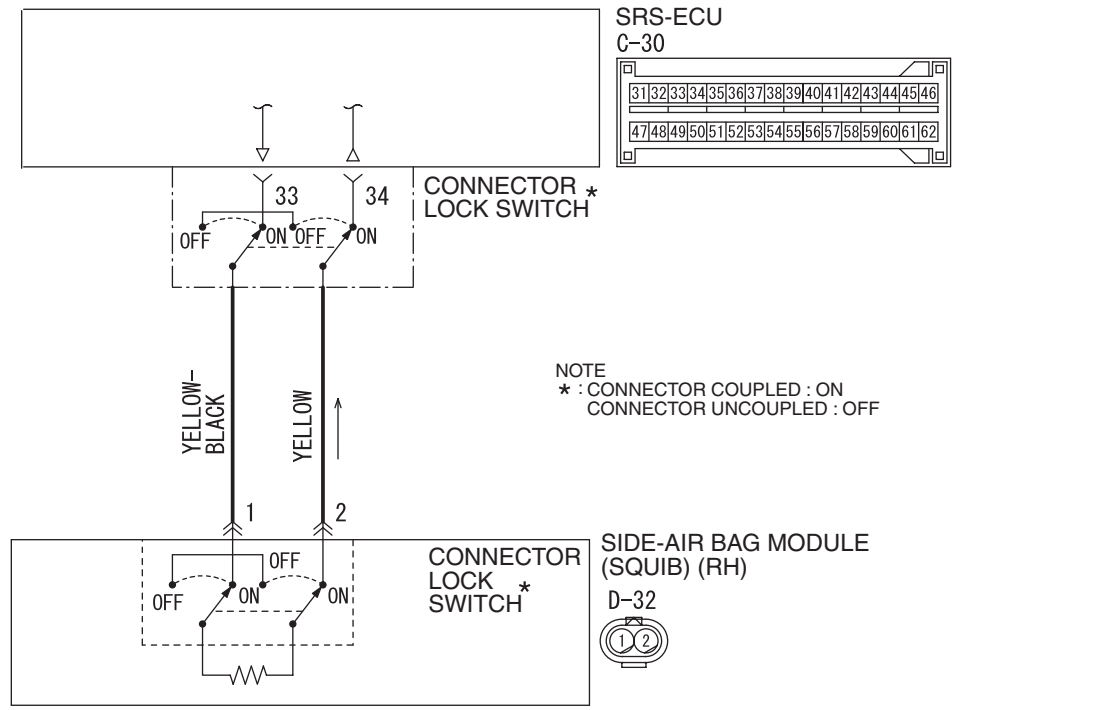
STEP 5. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1C2D set?

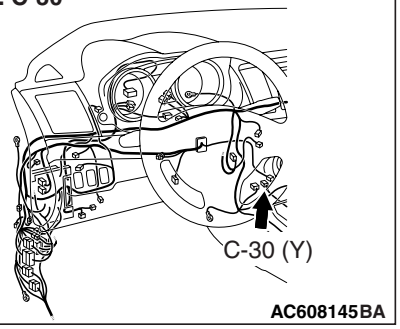
YES : Return to Step 1.
NO : The procedure is complete.

DTC B1C2E: Side-airbag Module (RH) (Squib) System (Short Circuit between Squib Circuit Terminals)

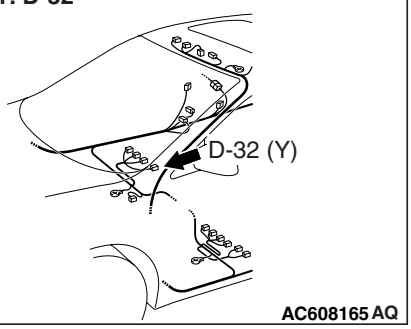
Side-airbag Module (Squib) (RH) Circuit



Connector: C-30



Connector: D-32



⚠ CAUTION
If DTC B1C2E is set in the SRS-ECU, always diagnose the CAN bus lines.

TSB Revision

CIRCUIT OPERATION

- The SRS-ECU judges how severe a collision is by detecting signals from the side impact sensor installed on the lower side of the center pillar. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the side-airbag safing G-sensor is on, the SRS side-airbag will inflate.
- The ignition signal is input to the side-airbag module to inflate the side-airbag.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the side-airbag module (RH) (squib).

TROUBLESHOOTING HINTS

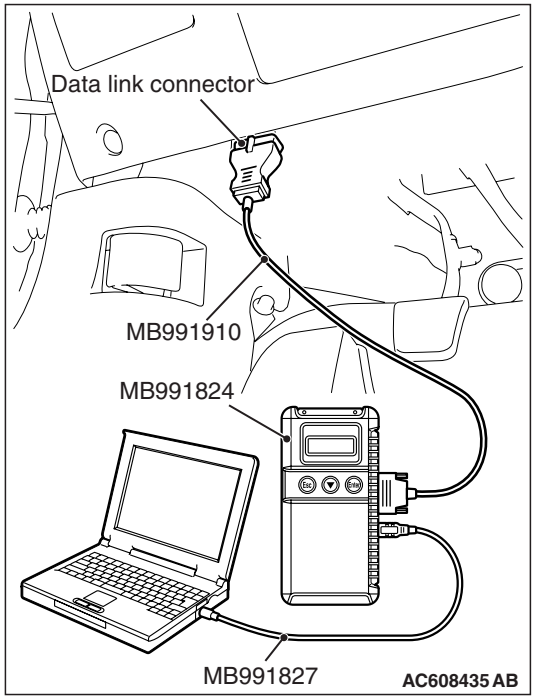
- Improper engaged connector or defective short spring*
- Short between the side-airbag module (RH) (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the air bag from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-30 or D-32 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)
- MB991865: Dummy resister
- MB991866: Resister harness



STEP 1. Using scan tool MB991934, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991934, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991934.

(1) Connect scan tool MB991934. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the check result satisfactory?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

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STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check SRS-ECU connector C-30 and side-airbag module (RH) connector D-32.

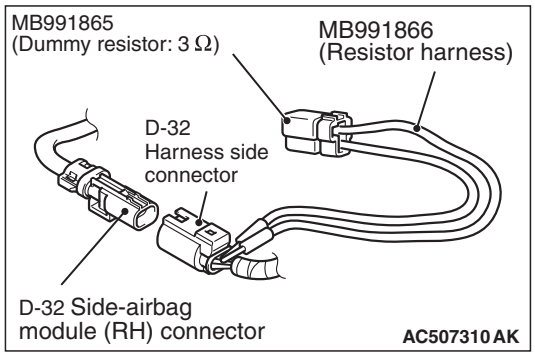
(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-30 and D-32, and then reconnect them.
(3) Connect the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C2E out put?

YES : Go to Step 4.
NO : The procedure is complete. It is assumed that DTC B1C2E set because connector C-30 or D-32 was engaged improperly.

STEP 4. Check the side-airbag module (RH).

(1) Disconnect the negative battery terminal.
(2) Disconnect the side-airbag module (RH) connector D-32.
(3) Connect special tool MB991865 to special tool MB991866.

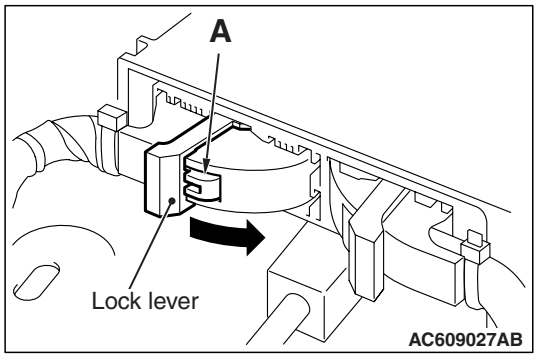


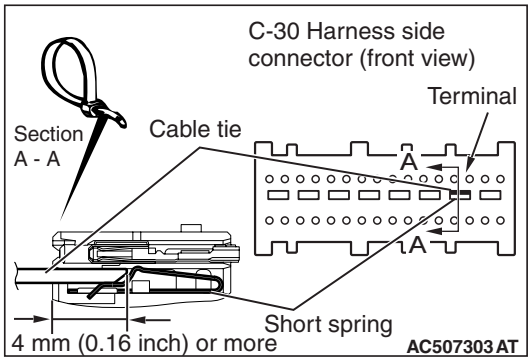
⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

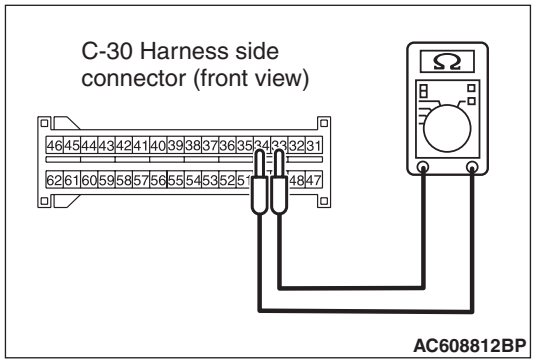
(4) Insert special tool MB991866 into the D-32 harness side connector by backprobing.
(5) Connect the negative battery terminal.
(6) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C2E set?

YES : Go to Step 5.
NO : Replace the front seatback frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21). Then go to Step 7.







STEP 5. Check the side-airbag module (RH) circuit. Measure the resistance at the SRS-ECU connector C-30.

(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.

⚠ ***DANGER***

To prevent the air bag from deploying unintentionally, disconnect the side-airbag module (RH) connector D-32 to short the squib circuit.

(2) Disconnect side-airbag module connector D-32.

⚠ **CAUTION**

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 33, 34 and the short spring to release the short spring.

(4) Measure at the wiring harness side.

⚠ **CAUTION**

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(5) Check for continuity between C-30 harness side connector terminals 33 and 34.
It should be open circuit.

Q: Does continuity exist?

YES : Go to Step 6.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C2E sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 7.

STEP 6. Check the harness wires for short circuit between SRS-ECU connector C-30 (terminal No.33 and 34) and side-airbag module (RH) connector D-32 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-30 (terminal No.33 and 34) and side-airbag module (RH) connector D-32 (terminal No.1 and 2) in good condition?

YES : Go to Step 7.

NO : Repair the harness wires between SRS-ECU connector C-30 and side-airbag module (RH) connector D-32. Then go to Step 7.

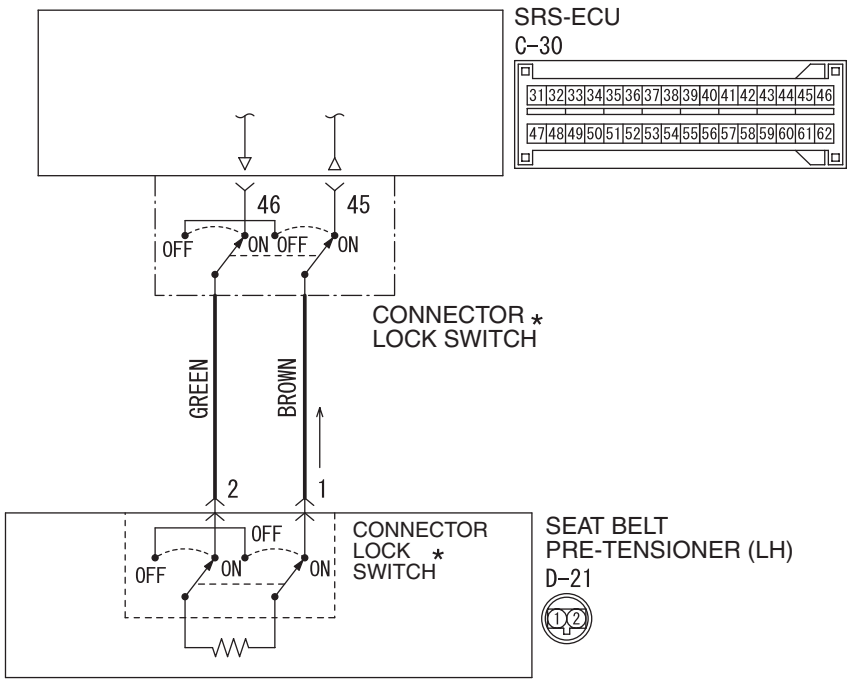
STEP 7. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1C2E set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1C38: Driver's Pre-tensioner (Squib) System (Shorted to Squib Circuit Ground)

Seat Belt Pre-Tensioner (LH) (Squib) Circuit



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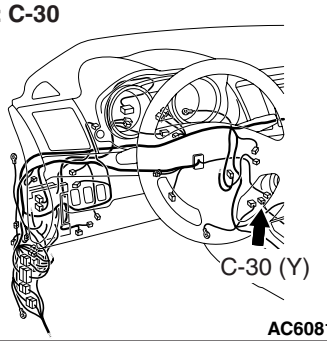
Connector: C-30



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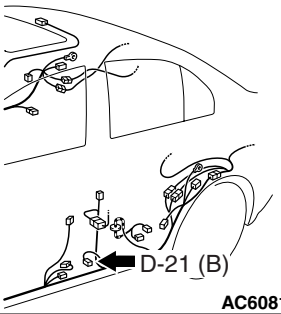
Connector: D-21



AC608166AG

⚠ CAUTION
If DTC B1C38 is set in the SRS-ECU, always diagnose the CAN main bus line.

TSB Revision

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the driver's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

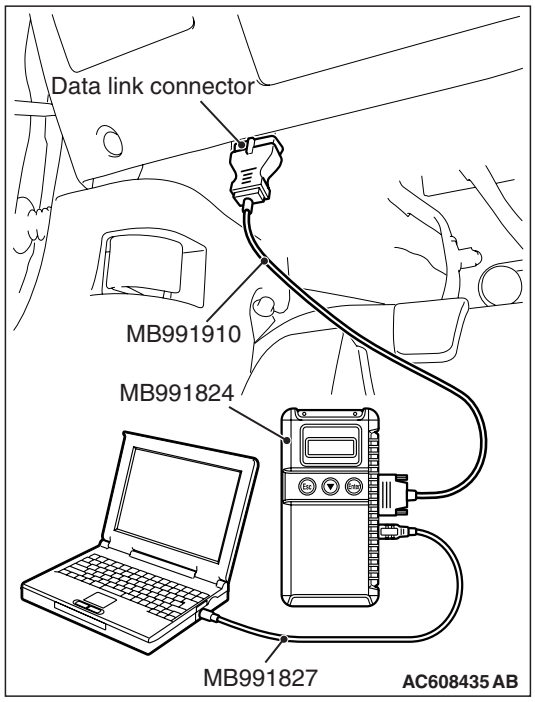
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

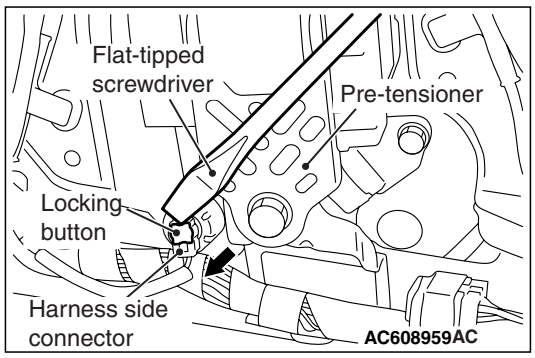
Q: Is the DTC set?

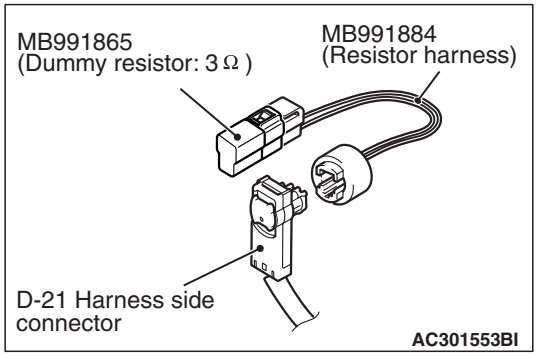
YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check the driver's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.
(2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





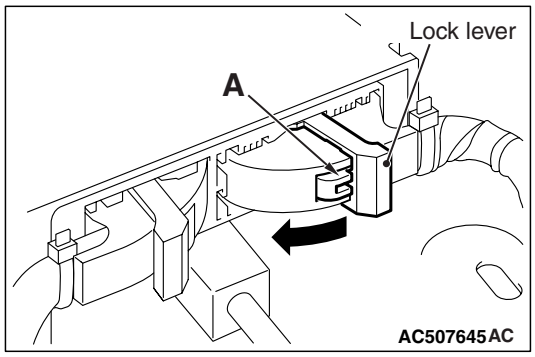
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-21 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C38 set?

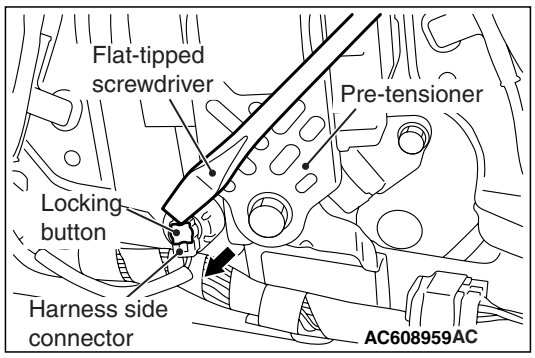
YES : Go to Step 4.

NO : Replace the driver's seat belt with pre-tensioner (Refer to P.52B-389). Then go to Step 6.

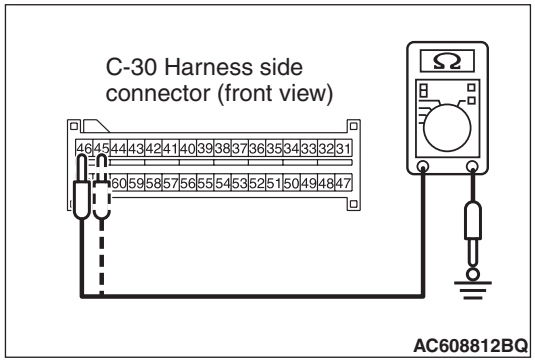
STEP 4. Check the driver's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-30.



(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



(2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(3) Check for continuity between C-30 harness side connector terminals 45, 46 and body ground.
It should be an open circuit.

Q: Does continuity exist?

YES : Go to Step 5.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C38 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 6.

STEP 5. Check harness wires for short circuit to ground between SRS-ECU connector C-30 (terminal No.45 and 46) and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-30 (terminal No.45 and 46) and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-30 and driver's seat belt pre-tensioner connector D-21. Then go to Step 6.

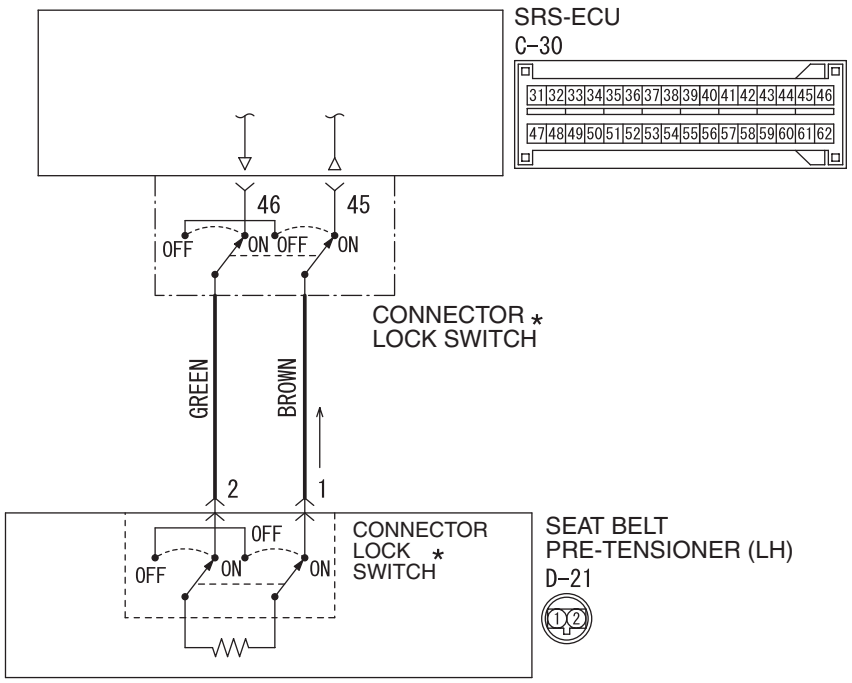
STEP 6. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1C38 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1C39: Driver's Pre-tensioner (Squib) System (Shorted to Squib Circuit Power Supply)

Seat Belt Pre-Tensioner (LH) (Squib) Circuit



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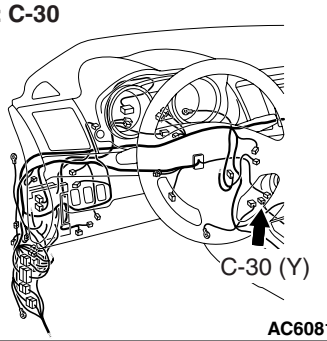
Connector: C-30



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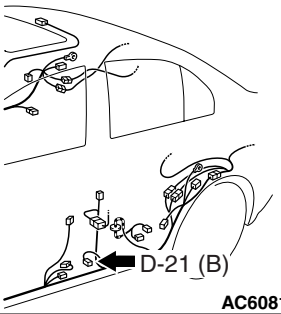
Connector: D-21



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⚠ CAUTION
If DTC B1C39 is set in the SRS-ECU, always diagnose the CAN main bus line.

TSB Revision

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

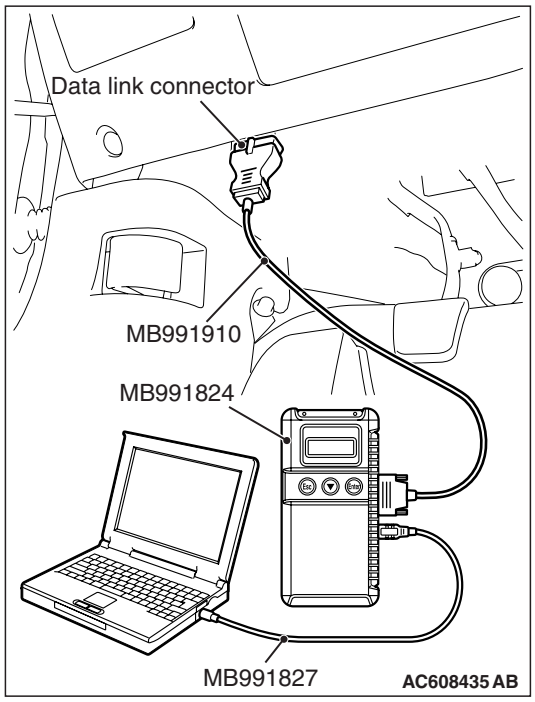
- Damaged wiring harnesses or connectors
- Short to the power supply in the driver's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.



⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

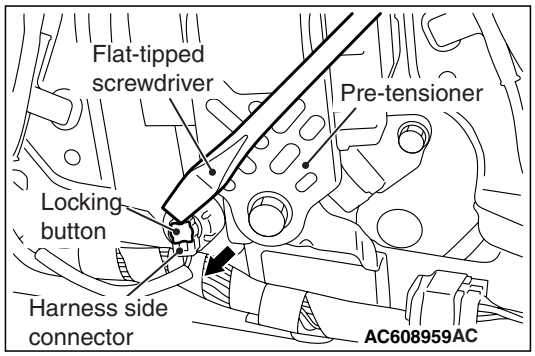
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

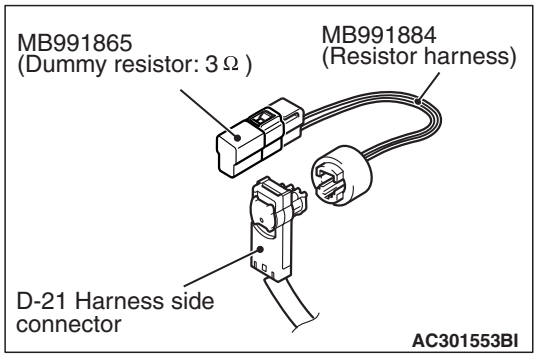
Q: Is the DTC set?

YES : Go to Step 3.
NO : Go to Step 6.

STEP 3. Check the driver's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.
(2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

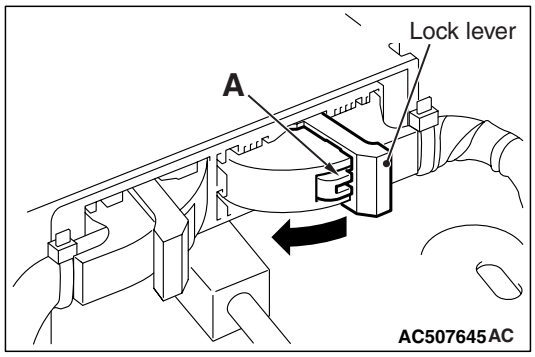


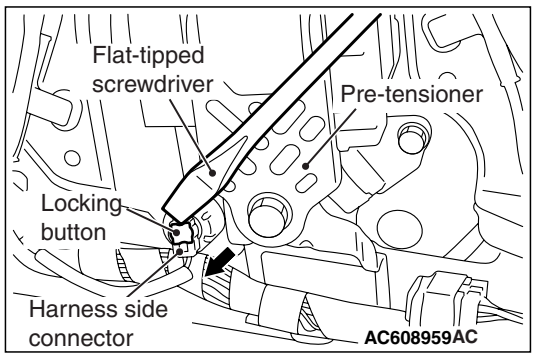


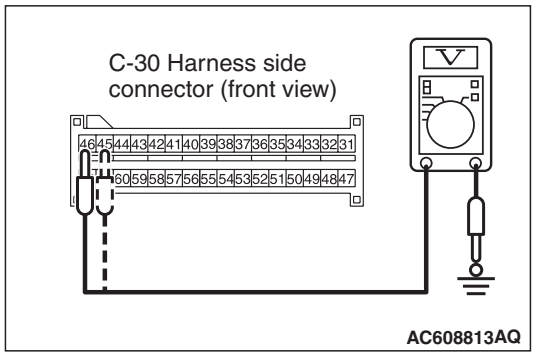
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-21 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C39 set?

YES : Go to Step 4.
NO : Replace the driver's seat belt with pre-tensioner (Refer to P.52B-389). Then go to Step 6.







STEP 4. Check the driver's seat belt pre-tensioner circuit. Measure the voltage at the SRS-ECU connector C-30.

(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.

(2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

(3) Turn the ignition switch to the "ON" position.

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Measure the voltage between C-30 harness side connector terminals 45, 46 and body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage 0 volt?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C39 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 6.

NO : Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-30 (terminal No.45 and 46) and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-30 (terminal No.45 and 46). and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2) in good condition?

YES : Go to Step 6.

NO : Replace the harness wires between SRS-ECU connector C-30 and driver's seat belt pre-tensioner connector D-21. Then go to Step 6.

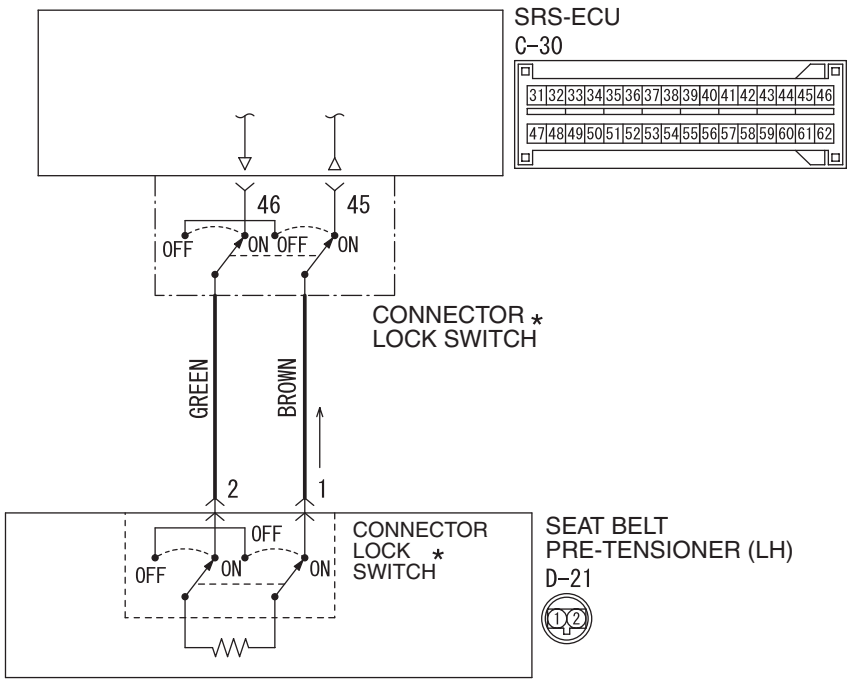
STEP 6. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1C39 set?

YES : Return to Step 1.
NO : The procedure is complete.

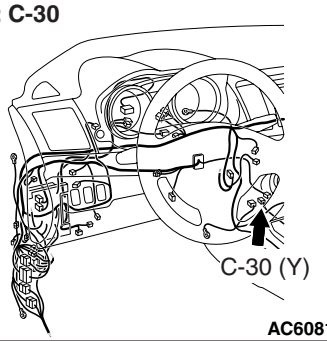
DTC B1C3A: Driver's Pre-tensioner (Squib) System (Squib Circuit Open)

Seat Belt Pre-Tensioner (LH) (Squib) Circuit



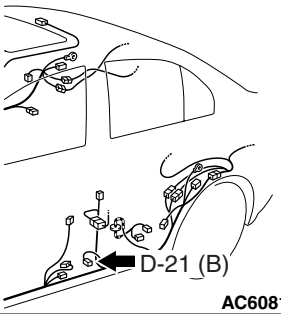
W8G52M011A

Connector: C-30



AC608145BA

Connector: D-21



AC608166AG

⚠ CAUTION
If DTC B1C3A is set in the SRS-ECU, always diagnose the CAN main bus line.

TSB Revision

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Improper connector contact
- Open circuit in the driver's seat belt pre-tensioner (squib) circuit
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

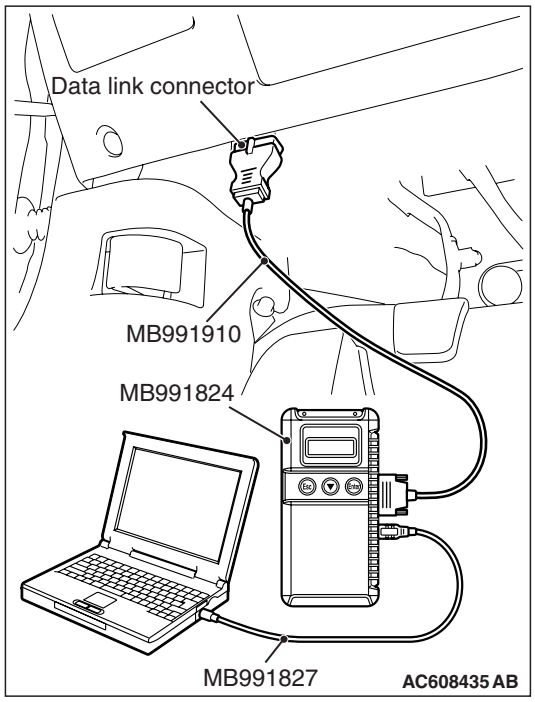
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

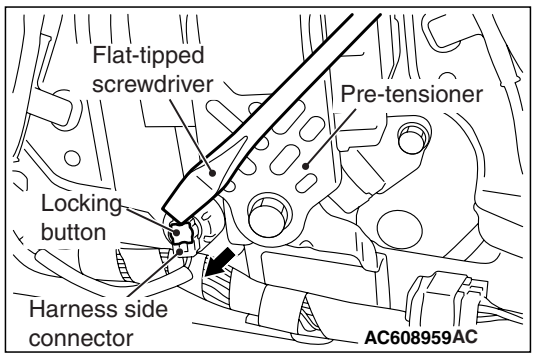
Q: Is the DTC set?

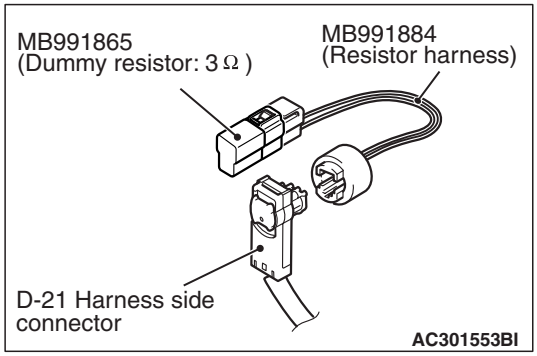
YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check the driver's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.
(2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





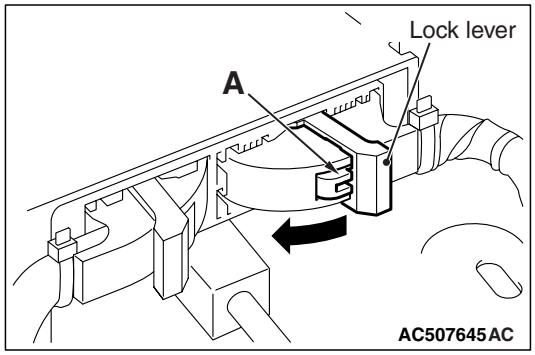
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-21 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC B1C3A set?

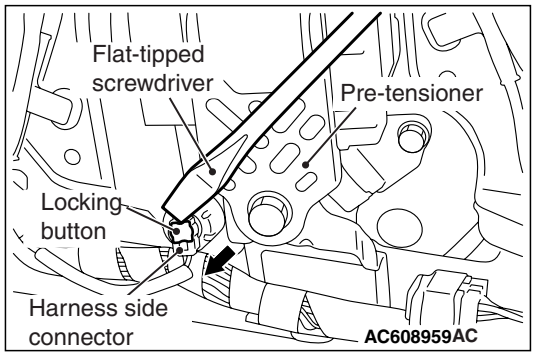
YES : Go to Step 4.

NO : Replace the driver's seat belt with pre-tensioner (Refer to P.52B-389). Then go to Step 5.

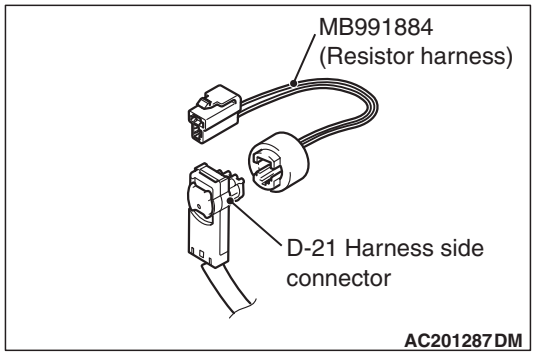
STEP 4. Check the harness for open circuit between SRS-ECU connector C-30 (terminal No.45 and 46) and the driver's seat belt pre-tensioner D-21 (terminal No.1 and 2).



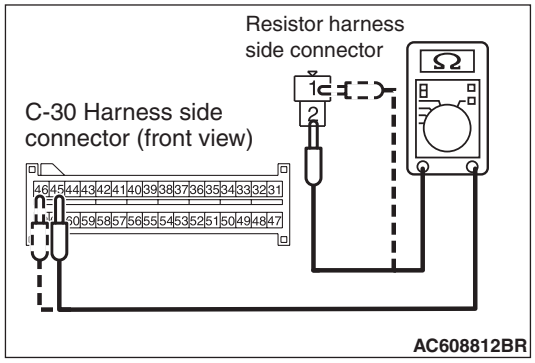
(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



(2) Disconnect SRS-ECU connector C-30 and driver's seat belt pre-tensioner connector D-21, and measure at the wiring harness side. For connector D-21, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(3) Connect D-21 harness side connector to special tool MB991884.



⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-30 (terminal No.45) and the special tool (terminal No.2)
- SRS-ECU connector C-30 (terminal No.46) and the special tool (terminal No.1)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and recheck if any DTC set. If DTC B1C3A set, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 5.

NO : Replace harness wires between SRS-ECU connector C-30 and driver's seat belt pre-tensioner connector D-21. Then go to Step 5.

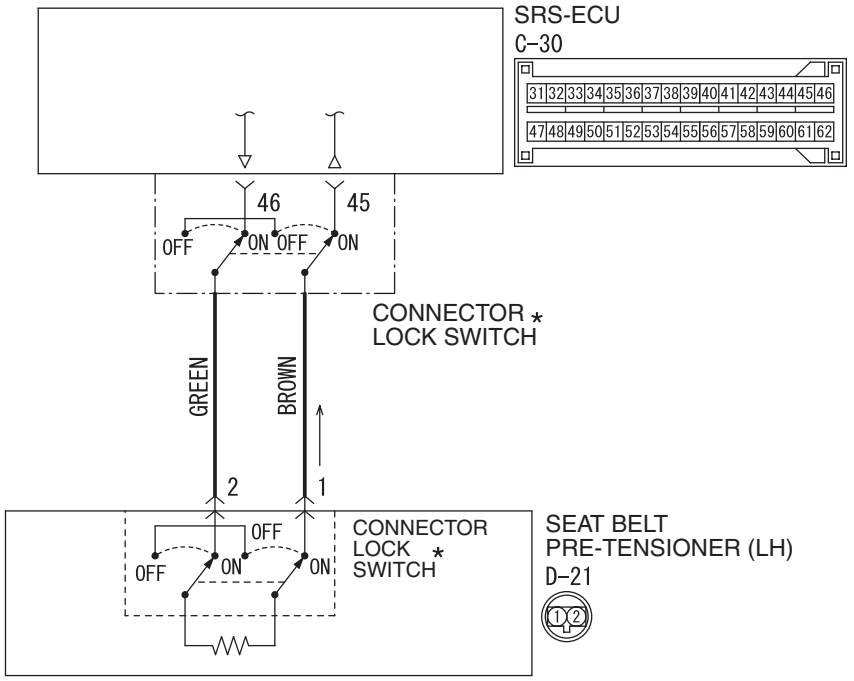
STEP 5. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1C3A set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1C3B: Driver's Pre-tensioner (Squib) System (Short Circuit Between Squib Circuit Terminals)

Seat Belt Pre-Tensioner (LH) (Squib) Circuit



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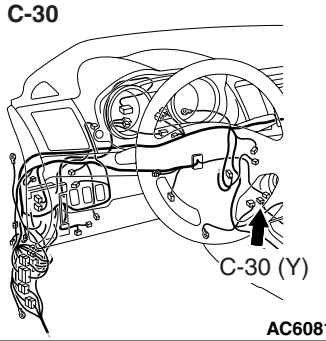
Connector: C-30



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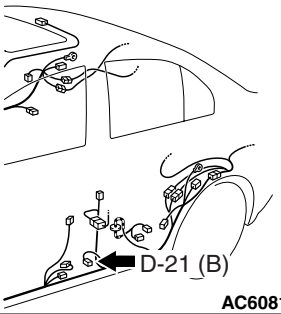
Connector: D-21



AC608166AG

⚠ CAUTION
If DTC B1C3B is set in the SRS-ECU, always diagnose the CAN main bus line.

TSB Revision

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the driver's side seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Improper engaged connector or defective short spring*
- Short circuit between the driver's seat belt pre-tensioner (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the seat belt pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-30 or D-21 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

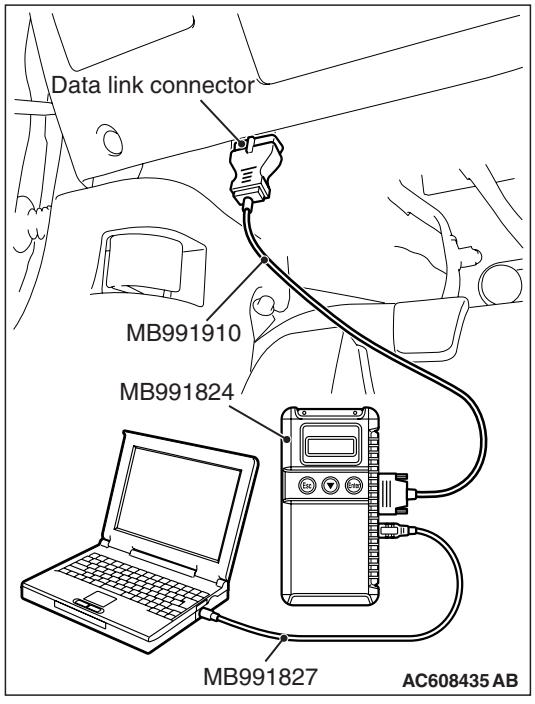
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2 .
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

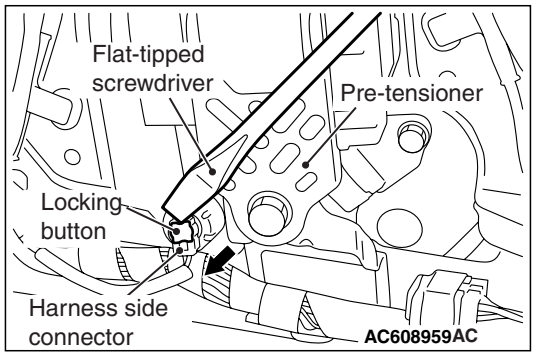
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3 .

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check SRS-ECU connector C-30 and driver's seat belt pre-tensioner connector D-21.

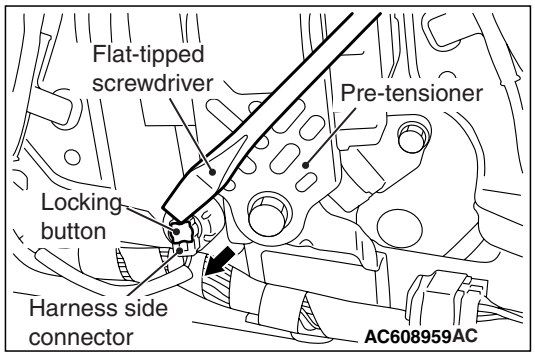


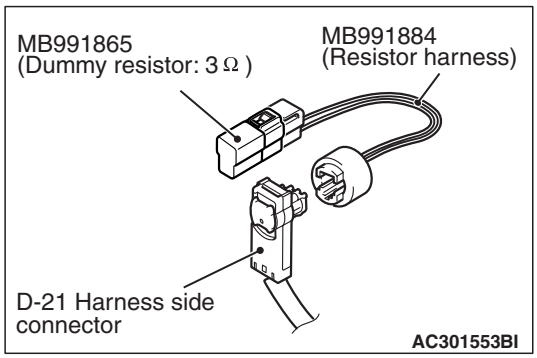
(1) Disconnect the negative battery terminal.
(2) Disconnect connectors C-30 and D-21, and then reconnect them. For connector D-21, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Connector the negative battery terminal.
(4) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C3B set?

YES : Go to Step 4.

NO : The procedure is complete. It is assumed that DTC B1C3B set because connector C-30 or D-21 was engaged improperly.





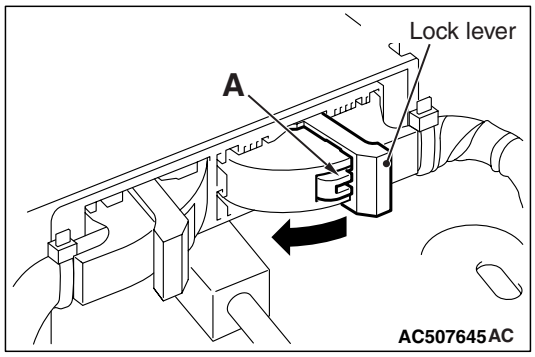
STEP 4. Check the driver's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.
(2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-21 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC B1C3B set?

YES : Go to Step 5.
NO : Replace the driver's seat with belt pre-tensioner (Refer to P.52B-389). Then go to Step 7.

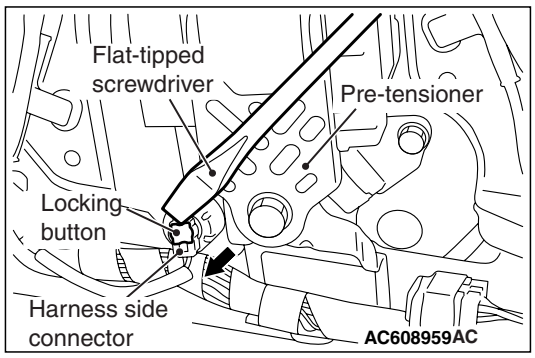
STEP 5. Check the driver's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-30.



(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.

⚠ ***DANGER***

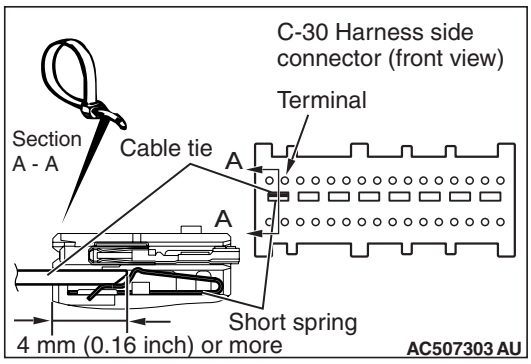
To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the driver's seat belt pre-tensioner connector D-21 to short the squib circuit.



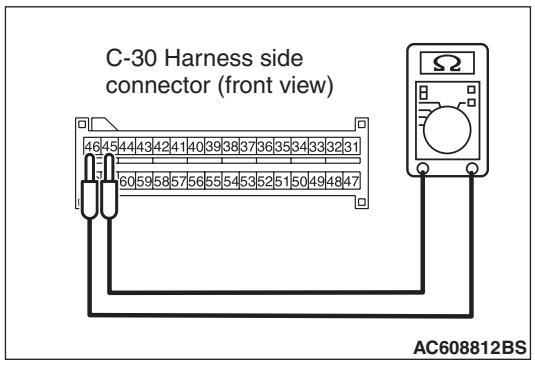
(2) Disconnect driver's seat belt pre-tensioner connector D-21. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

⚠ **CAUTION**

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.



(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 45, 46 and the short spring to release the short spring.



⚠ **CAUTION**

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Check for continuity between C-30 harness side connector terminals 45 and 46.
It should be an open circuit.

Q: Does continuity exist?

YES : Go to Step 6.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C3B sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 7.

STEP 6. Check the harness for short circuit between SRS-ECU connector C-30 (terminal No.45 and 46) and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2).

Q: Are harness wires between SRS-ECU connector C-30 (terminal No.45 and 46) and driver's seat belt pre-tensioner connector D-21 (terminal No.1 and 2) in good condition?

YES : Go to Step 7.

NO : Replace the harness wires between SRS-ECU connector C-30 and driver's seat belt pre-tensioner connector D-21. Then go to Step 7.

STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

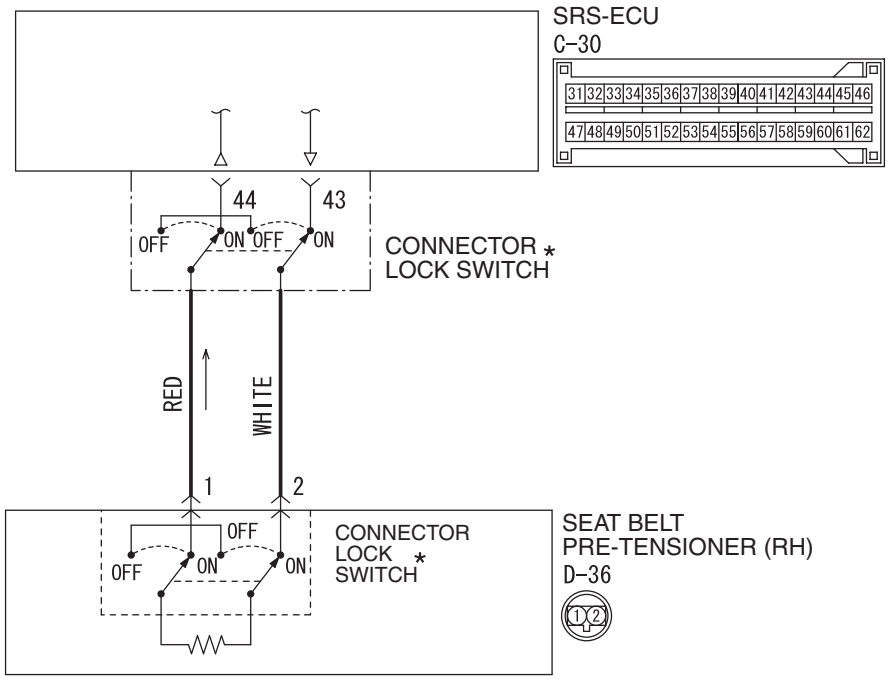
Q: Is DTC B1C3B set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B1C47: Front Passenger's pre-tensioner (squib) system (shorted to squib circuit Ground)

Seat Belt Pre-Tensioner (RH) (Squib) Circuit



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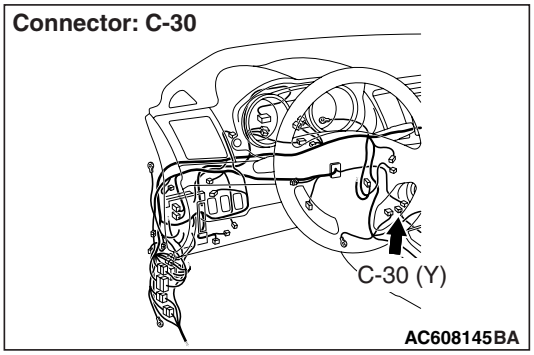
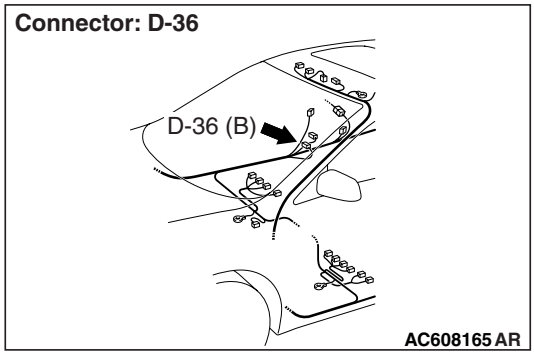




⚠ CAUTION

If DTC B1C47 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

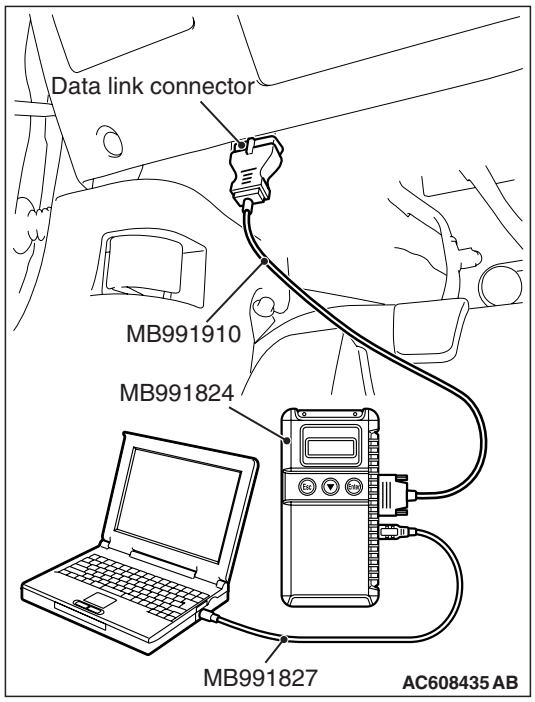
TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the ground in the passenger's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

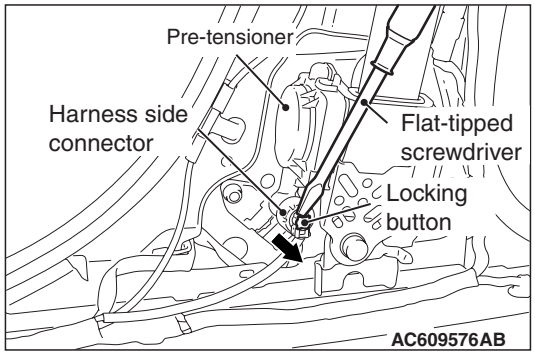
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

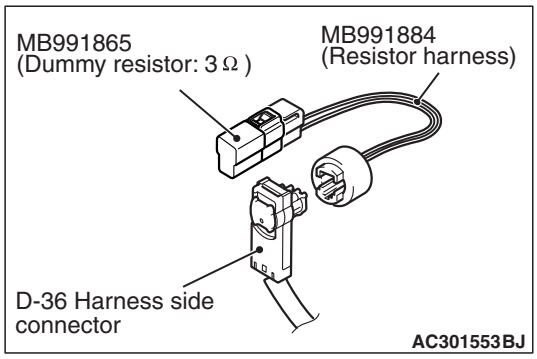
Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).



STEP 3. Check the passenger's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.
(2) Disconnect passenger's seat belt pre-tensioner connector D-36. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

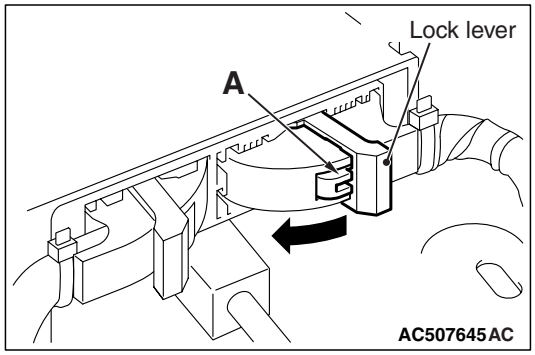


(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-36 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

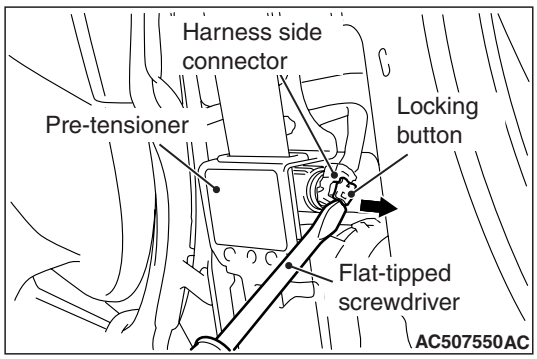
Q: Is DTC B1C47 set?

YES : Go to Step 4.
NO : Replace the passenger's seat belt with pre-tensioner (Refer to P.52B-389). Then go to Step 6.

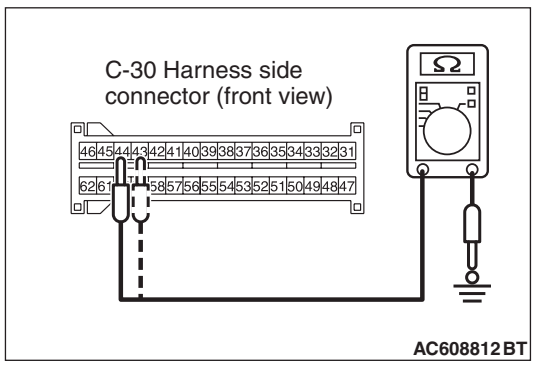
STEP 4. Check the passenger's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-30.



(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



(2) Disconnect passenger's seat belt pre-tensioner connector D-36. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(3) Check for continuity between C-30 harness side connector terminals 43, 44 and body ground.
It should be an open circuit.

Q: Does continuity exist?

YES : Go to Step 5.
NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C47 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 6.

STEP 5. Check harness wires for short circuit to ground between SRS-ECU connector C-30 (terminal No.43 and 44) and passenger's seat belt pre-tensioner connector D-36 (terminal No.2 and 1).

Q: Are the harness wires between SRS-ECU connector C-30 (terminal No.43 and 44) and passenger's seat belt pre-tensioner connector D-36 (terminal No.2 and 1) in good condition?

YES : Go to Step 6.
NO : Replace the harness wires between SRS-ECU connector C-30 and passenger's seat belt pre-tensioner connector D-36. Then go to Step 6.

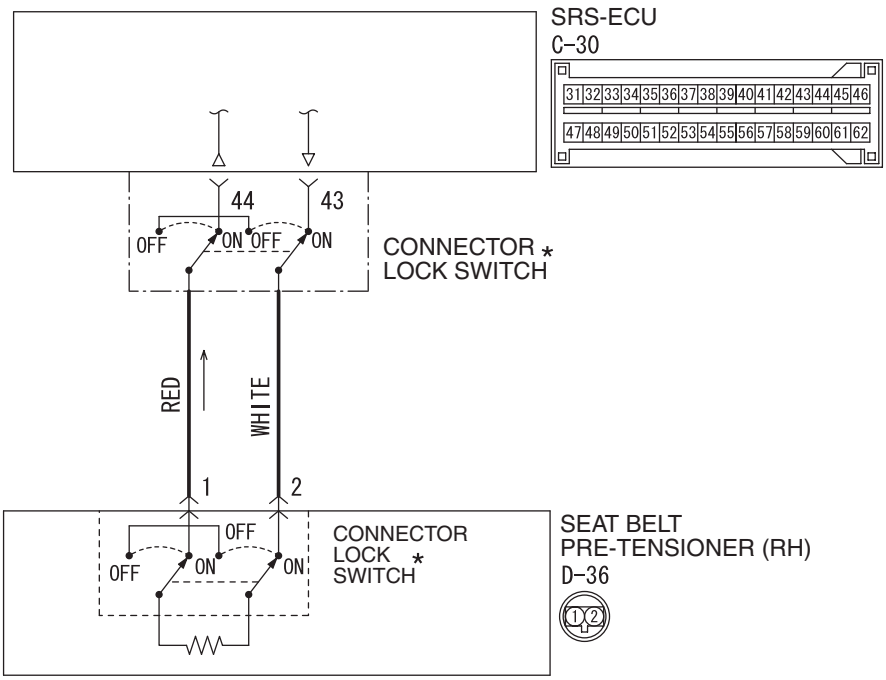
STEP 6. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1C47 set?

YES : Return to Step 1.
NO : The procedure is complete.

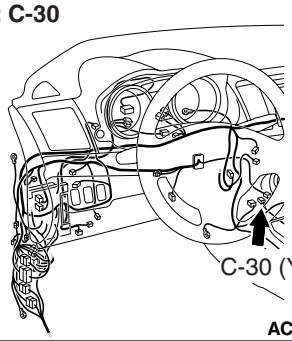
DTC B1C48: Front Passenger's Pre-tensioner (Squib) System (Shorted to Squib Circuit Power Supply)

Seat Belt Pre-Tensioner (RH) (Squib) Circuit



W8G52M012A

Connector: C-30



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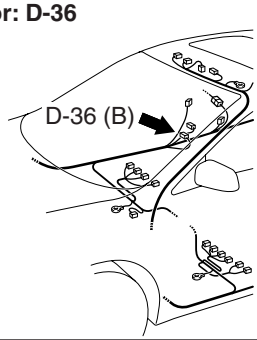
Connector: D-36



AC608165AR

⚠ CAUTION
If DTC B1C48 is set in the SRS-ECU, always diagnose the CAN main bus line.

TSB Revision

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

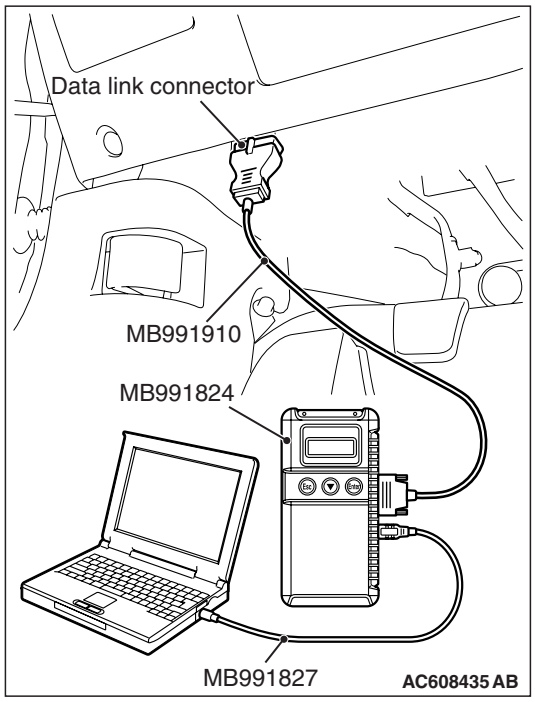
TROUBLESHOOTING HITS

- Damaged wiring harnesses or connectors
- Short to the power supply in the passenger's seat belt pre-tensioner (squib) harness
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

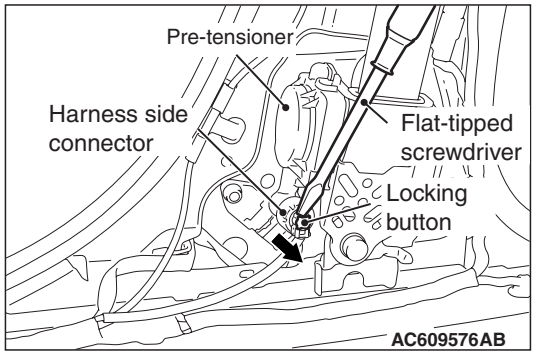
Q: Is the DTC set?

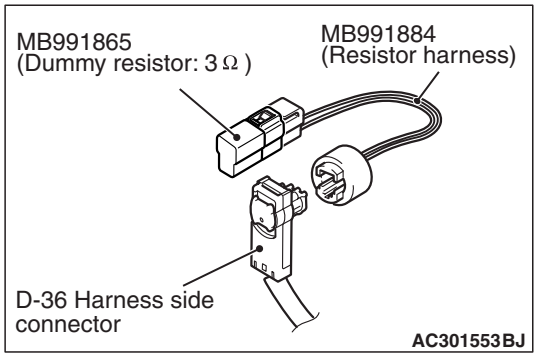
YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check the passenger's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.
(2) Disconnect passenger's seat belt pre-tensioner connector D-36. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





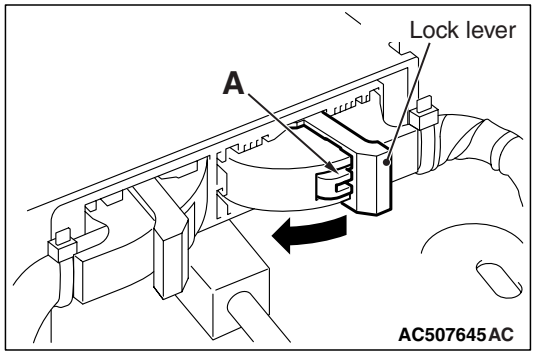
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-36 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC B1C48 set?

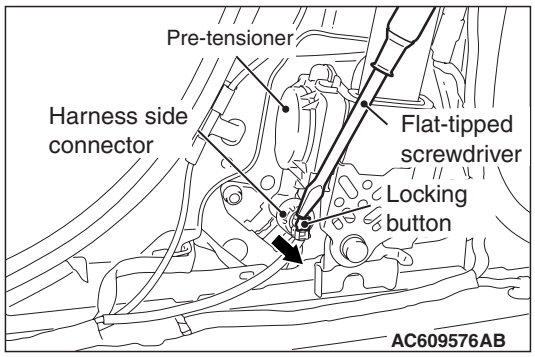
YES : Go to Step 4.

NO : Replace the passenger's seat belt with pre-tensioner (Refer to P.52B-389). Then go to Step 6.

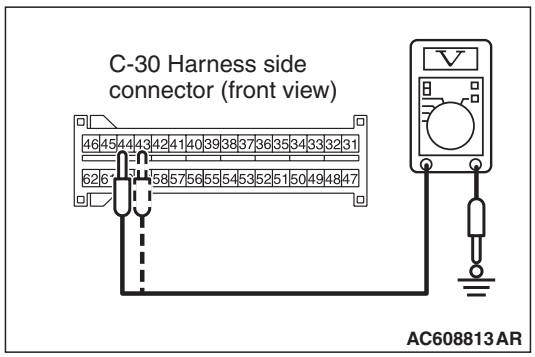
STEP 4. Check the passenger's seat belt pre-tensioner circuit. Measure the voltage at the SRS-ECU connector C-30.



(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



(2) Disconnect passenger's seat belt pre-tensioner connector D-36. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(3) Turn the ignition switch to the "ON" position,



⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Measure the voltage between C-30 harness side connector terminals 43, 44 and body ground.
Voltage should measure 0 volt.

Q: Is the measured voltage 0 volt?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C48 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 6.
NO : Go to Step 5.

STEP 5. Check the harness wires for short circuit to power supply between SRS-ECU connector C-30 (terminal No.43 and 44) and passenger's seat belt pre-tensioner connector D-36 (terminal No.2 and 1).

Q: Are the harness wires between SRS-ECU connector C-30 (terminal No.43 and 44) and passenger's seat belt pre-tensioner connector D-36 (terminal No.2 and 1) in good condition?

YES : Go to Step 6.
NO : Replace the harness wires between SRS-ECU connector C-30 and passenger's seat belt pre-tensioner connector D-36. Then go to Step 6.

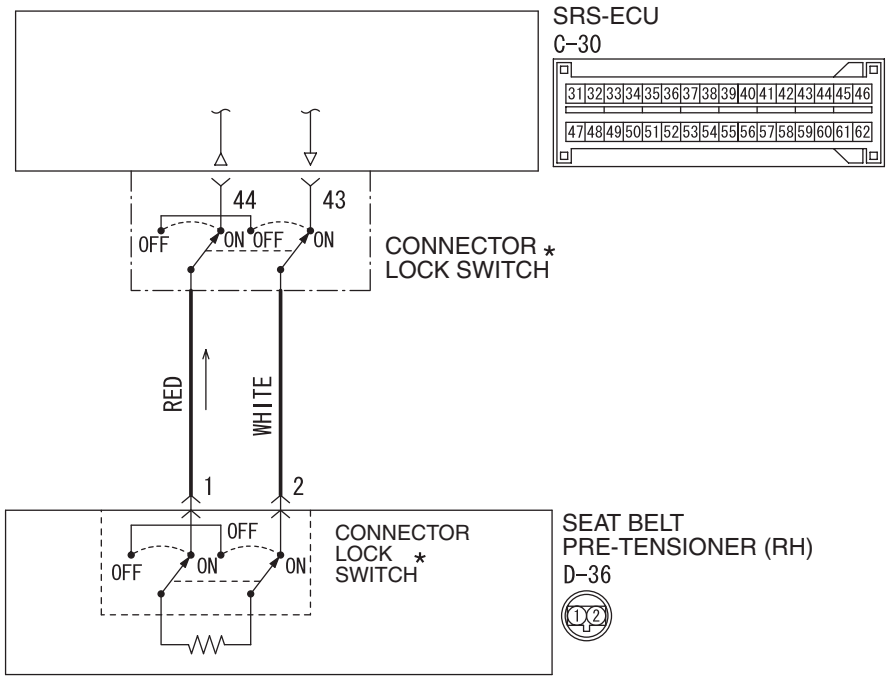
STEP 6. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1C48 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1C49: Front Passenger's Pre-tensioner (Squib) System (Squib Circuit Open)

Seat Belt Pre-Tensioner (RH) (Squib) Circuit



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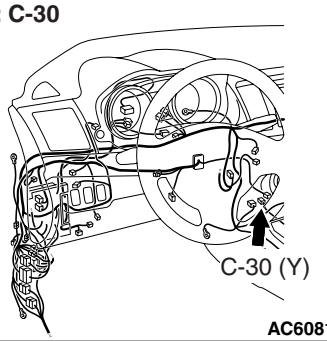
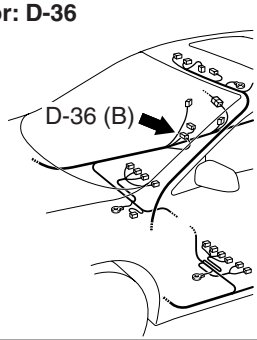
Connector: C-30



AC608145BA

Connector: D-36



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⚠ CAUTION
If DTC B1C49 is set in the SRS-ECU, always diagnose the CAN main bus line.

TSB Revision

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Open circuit in the passenger's seat belt pre-tensioner (squib) circuit
- Improper connector contact
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

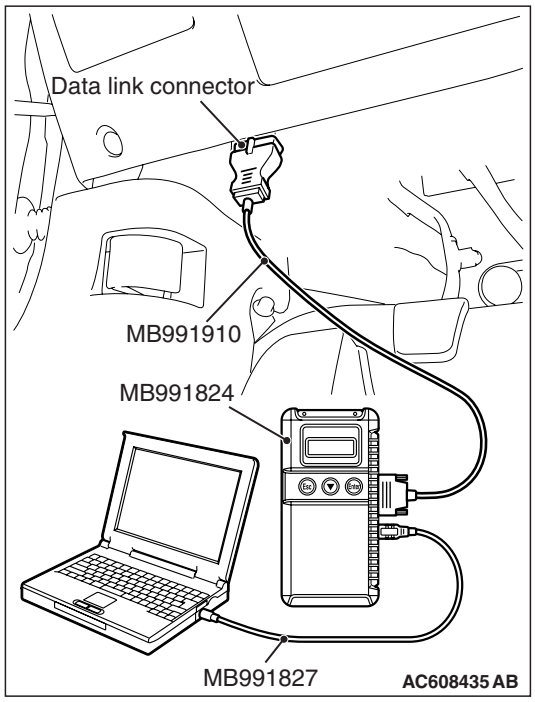
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

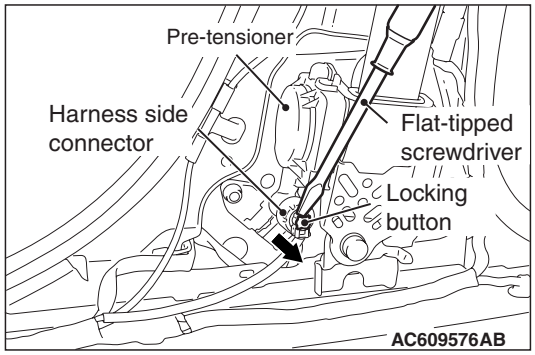
Q: Is the DTC set?

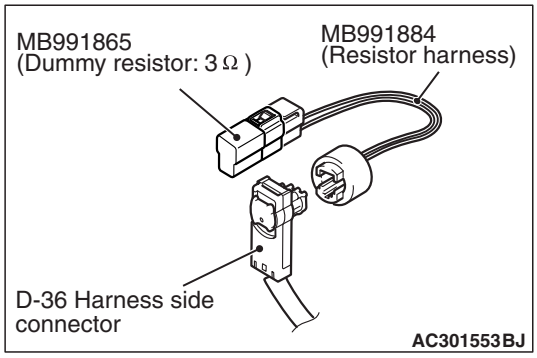
YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check the passenger's seat belt pre-tensioner.

(1) Disconnect the negative battery terminal.
(2) Disconnect passenger's seat belt pre-tensioner connector D-36. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.





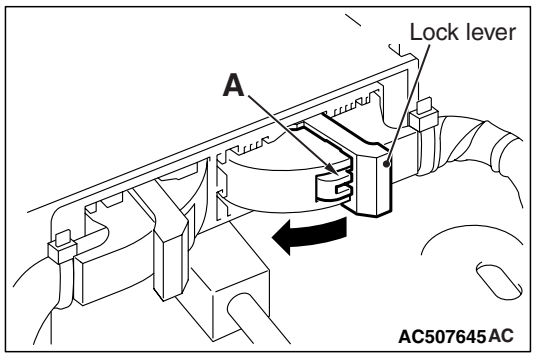
(3) Connect special tool MB991865 to special tool MB991884.
(4) Connect special tool MB991884 to the D-36 harness side connector.
(5) Connect the negative battery terminal.
(6) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

Q: Is DTC B1C49 set?

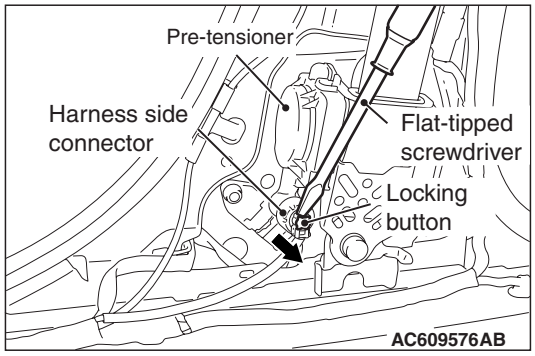
YES : Go to Step 4.

NO : Replace the passenger's seat belt with pre-tensioner (Refer to P.52B-389). Then go to Step 5.

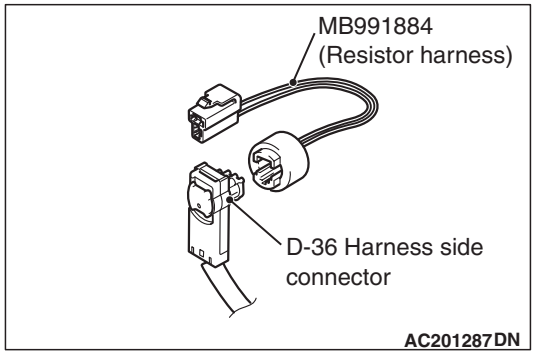
STEP 4. Check the harness for open circuit between SRS-ECU connector C-30 (terminal No.43 and 44) and the passenger's seat belt pre-tensioner connector D-36 (terminal No.2 and 1).



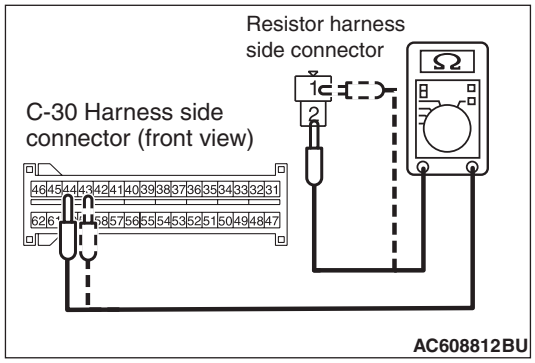
(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



(2) Disconnect SRS-ECU connector C-30 and passenger's seat belt pre-tensioner connector D-36. For connector D-36, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(3) Connect D-36 harness side connector to special tool MB991884.



⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(4) Check for continuity between the following terminals. It should be less than 2 ohms.
- SRS-ECU connector C-30 (terminal No.43) and the special tool (terminal No.1)
- SRS-ECU connector C-30 (terminal No.44) and the special tool (terminal No.2)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1C49 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 5.

NO : Replace the harness wires between SRS-ECU connector C-30 passenger's seat belt pre-tensioner

connector D-36. Then go to Step 5.

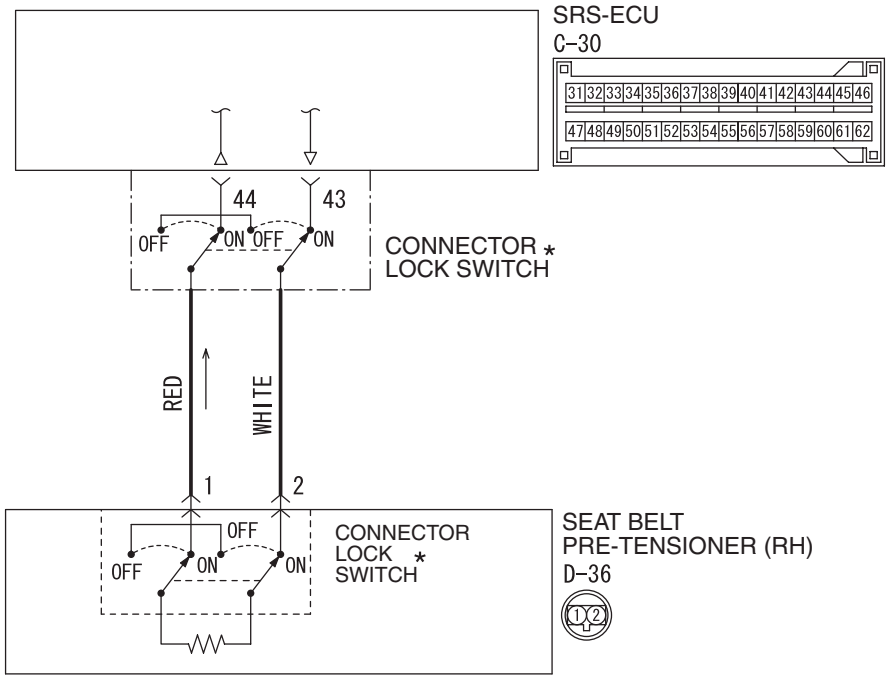
STEP 5. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B1C49 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC B1C4A: Front Passenger's Pre-tensioner (Squib) System (Short Circuit between Squib Circuit Terminals)

Seat Belt Pre-Tensioner (RH) (Squib) Circuit



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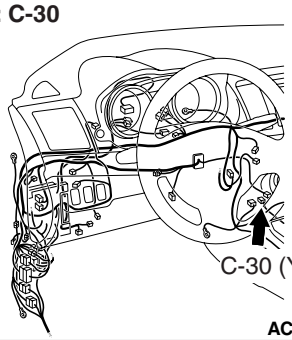
Connector: C-30



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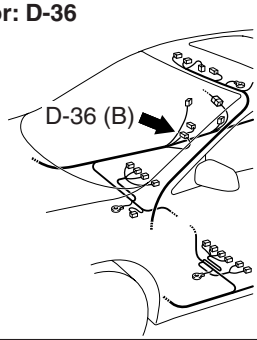
Connector: D-36



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TSB Revision

⚠ CAUTION
If DTC B1C4A is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

The SRS-ECU judges how severe a collision is by detecting signals from the front impact sensors and the front air bag analog G-sensor. If the impact is over a predetermined level, the SRS-ECU sends an ignition signal. At this time, if the front air bag safing G-sensor is on, the pre-tensioner will deploy.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the passenger's seat belt pre-tensioner (squib).

TROUBLESHOOTING HITS

- Improper engaged connector or defective short spring*
- Short circuit between the passenger's seat belt pre-tensioner (squib) circuit terminals
- Damaged connector(s)
- Malfunction of the SRS-ECU

*NOTE: *: The squib circuit connectors integrate a "short" spring (which prevents the seat belt pre-tensioner from deploying unintentionally due to static electricity by shorting the positive wire to the ground wire in the squib circuit when the connectors are disconnected) (Refer to P.52B-3). Therefore, if connector C-30 or D-36 is damaged or improperly engaged, the short spring may not be released when the connector is connected.*

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)
- MB991865: Dummy resistor
- MB991884: Resister harness

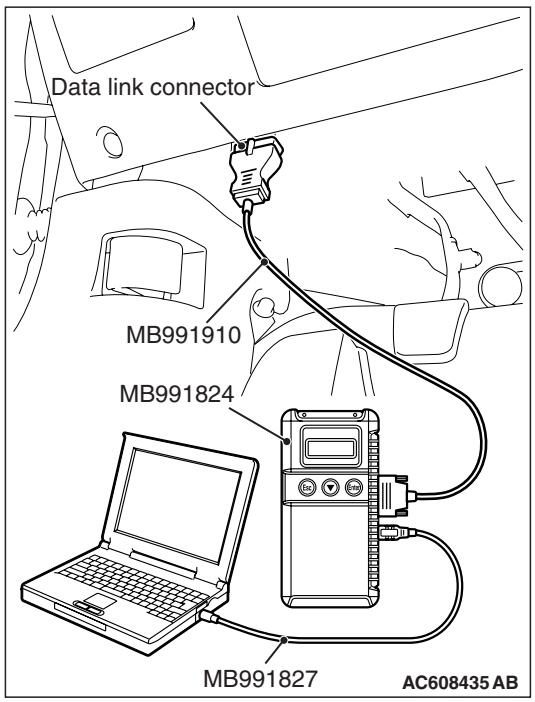
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

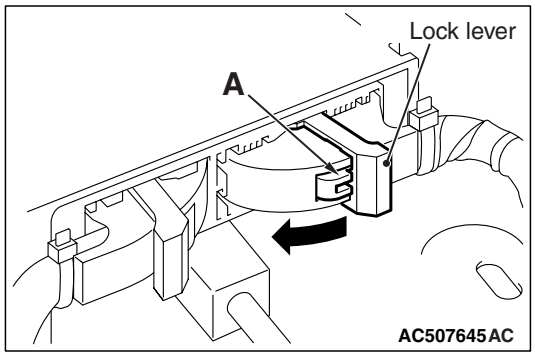
Q: Is the DTC set?

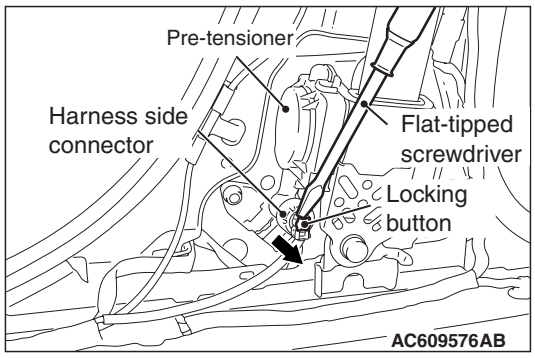
YES : Go to Step 3.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check SRS-ECU connector C-30 and passenger's seat belt pre-tensioner connector D-36.

(1) Disconnect the negative battery terminal.
(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.





(3) Disconnect connectors C-30 and D-36, and then reconnect them. For connector D-36, use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.
(4) Connector the negative battery terminal.
(5) Erase the diagnostic trouble code memory, and check the diagnostic trouble code.

Q: Is DTC B1C4A set?

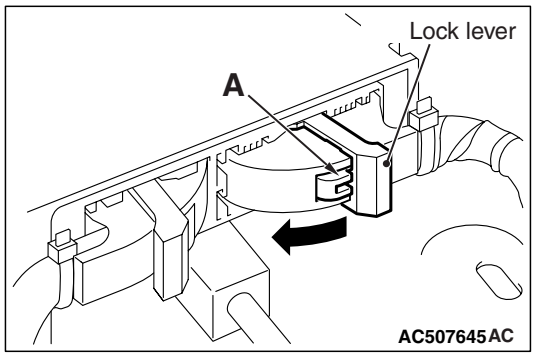
YES : Go to Step 4.

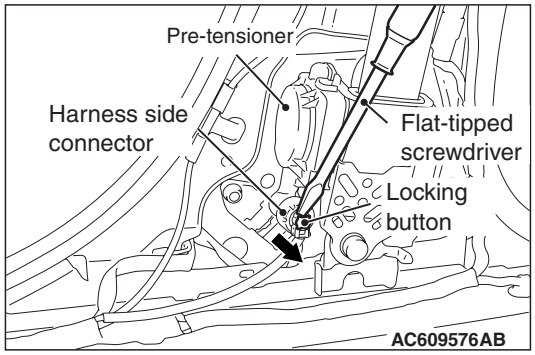
NO : The procedure is complete. It is assumed that DTC B1C4A set because connector C-30 or D-36 was engaged improperly.

STEP 4. Check the passenger's seat belt pre-tensioner.

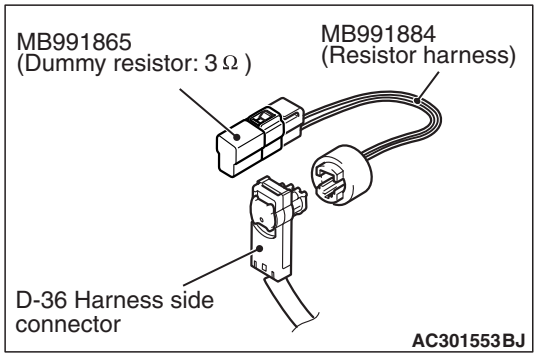
(1) Disconnect the negative battery terminal.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.





(3) Disconnect passenger's seat belt pre-tensioner connector D-36. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.



(4) Connect special tool MB991865 to special tool MB991884.

(5) Connect special tool MB991884 to the D-36 harness side connector.

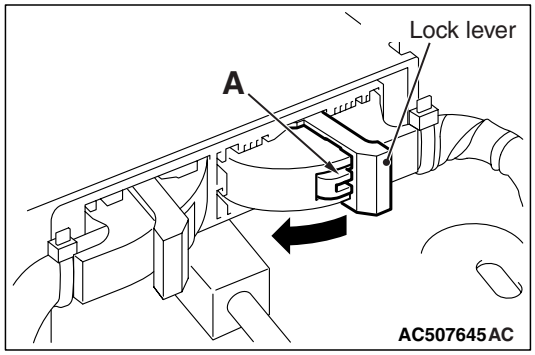
(6) Connect the negative battery terminal.

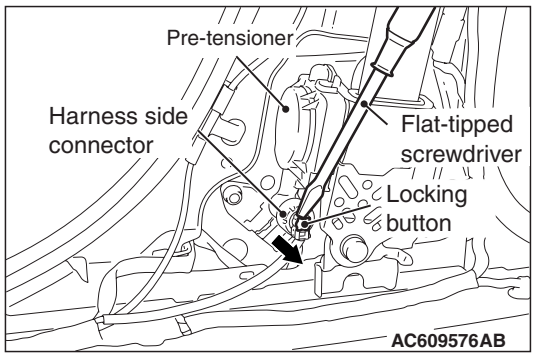
(7) Erase diagnostic trouble code memory, and then check the diagnostic trouble code.

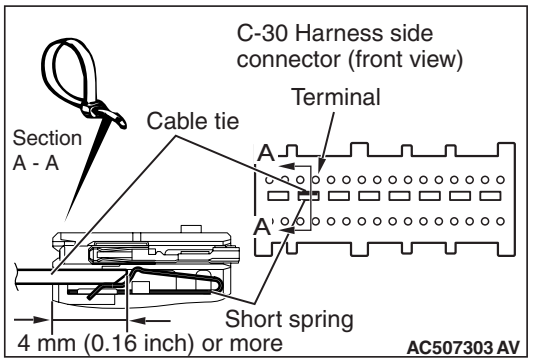
Q: Is DTC B1C4A set?

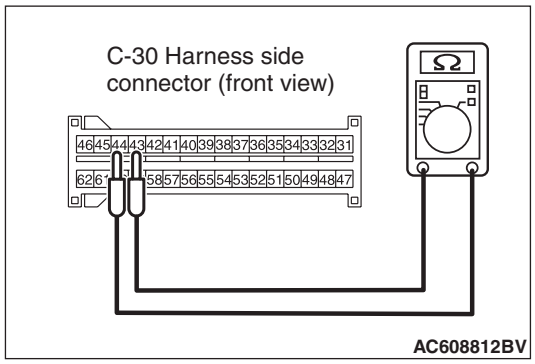
YES : Go to Step 5.

NO : Replace the passenger's seat belt with pre-tensioner (Refer to P.52B-389). Then go to Step 7.









STEP 5. Check the passenger's seat belt pre-tensioner circuit. Measure the resistance at the SRS-ECU connector C-30.

(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.

⚠ ***DANGER***

To prevent the seat belt pre-tensioner from deploying unintentionally, disconnect the passenger's seat belt pre-tensioner connector D-36 to short the squib circuit.

(2) Disconnect passenger's seat belt pre-tensioner connector D-36. Use a flat-tipped screwdriver to unlock the locking button at the harness side connector by withdrawing it toward you in two stages, and then disconnect the connector.

⚠ **CAUTION**

Insert an insulator such as a cable tie to a depth of 4mm (0.16 inch) or more, otherwise the short spring will not be released.

(3) Insert a cable tie [3 mm (0.12 inch) wide, 0.5 mm (0.02 inch) thick] between terminals 43, 44 and the short spring to release the short spring.

⚠ **CAUTION**

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Check for continuity between C-30 harness side connector terminals 43 and 44.
It should be an open circuit.

Q: Does continuity exist?

YES : Go to Step 6.

NO : Erase the diagnostic trouble code memory, and check diagnostic trouble code. If DTC B1C4A set, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 7.

STEP 6. Check the harness for short circuit between SRS-ECU connector C-30 (terminal No.43 and 44) and passenger's seat belt pre-tensioner connector D-36 (terminal No.2 and 1).

Q: Are harness wires between SRS-ECU connector C-30 (terminal No.43 and 44) connector and passenger's seat belt pre-tensioner connector D-36 (terminal No.2 and 1) in good condition?

YES : Go to Step 7.

NO : Replace the harness wires between SRS-ECU connector C-30 and passenger's seat belt pre-tensioner connector D-36. Then go to Step 7.

STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

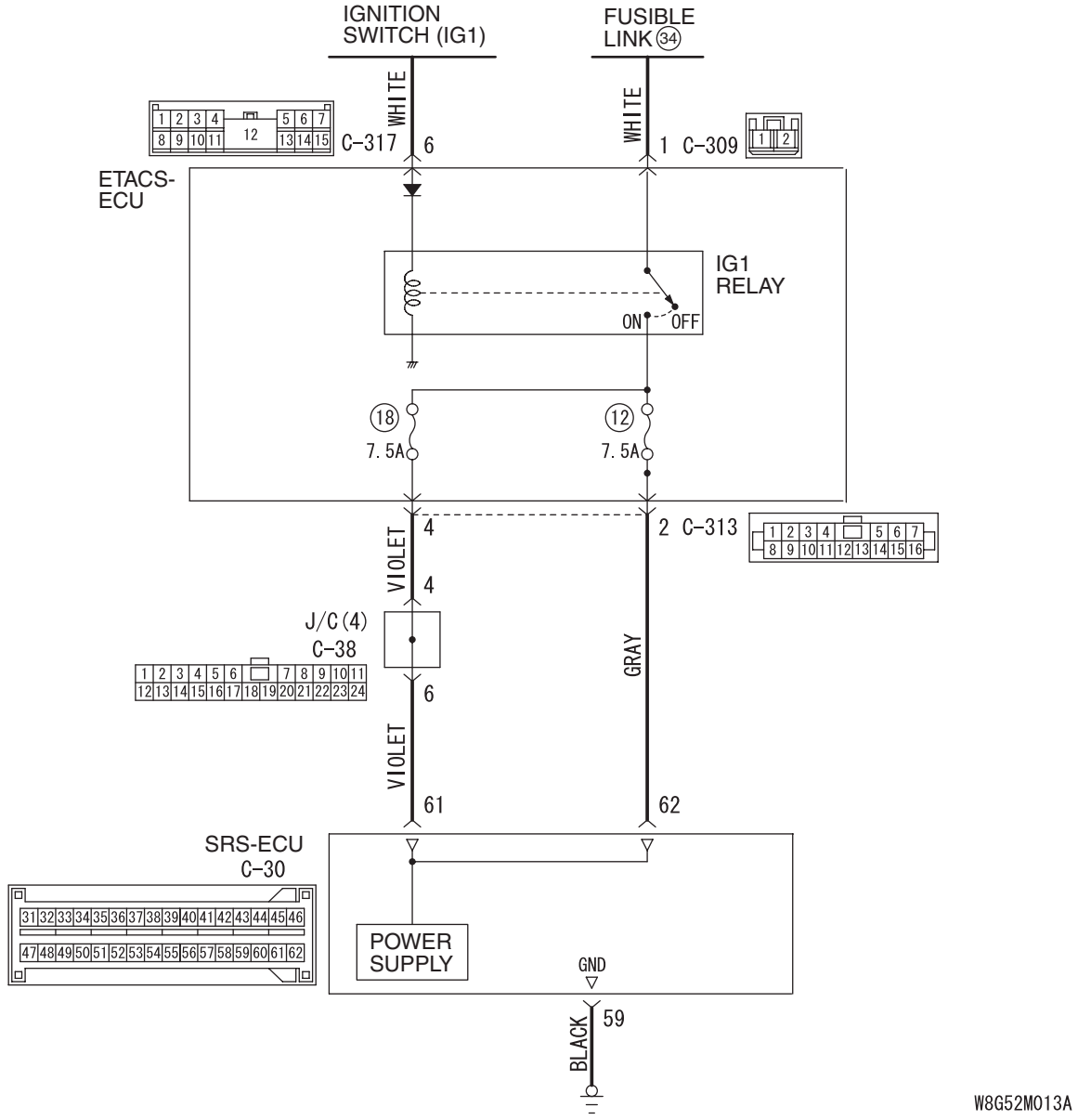
Q: Is DTC B1C4A set?

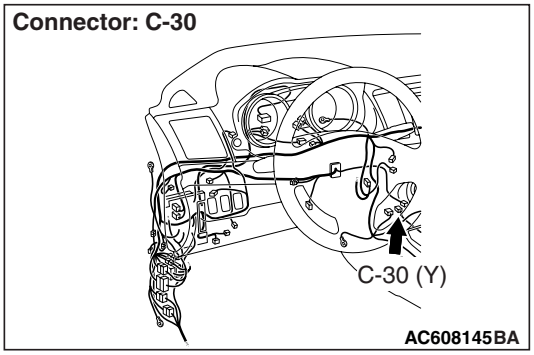
YES : Return to Step 1.

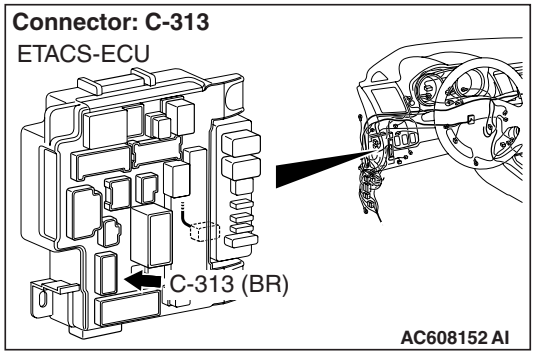
NO : The procedure is complete.

DTC B210D: Battery Abnormal Low Voltage

IG1 Power Supply Circuit







⚠ CAUTION

If the diagnostic trouble code B210D is set in the SRS-ECU, always diagnose the CAN main bus line.

TSB Revision

CIRCUIT OPERATION

- The SRS-ECU is powered from the ignition switch (IG1).
- The SRS-ECU power is supplied from two circuits. Even if one circuit is shut off, the air bag can inflate.

DTC SET CONDITIONS

This DTC is set if the voltage between the IG1 terminals (fuse No.12 circuit or fuse No.18 circuit) and ground is lower than a predetermined value for a continuous period of five second or more.

TROUBLESHOOTING HINTS

- Battery voltage drop
- Open circuit to power supply circuit
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Battery voltage check

Check the battery voltage.

Q: Is the check result normal?

YES : Go to Step 2.
NO : Charge or replace the battery.

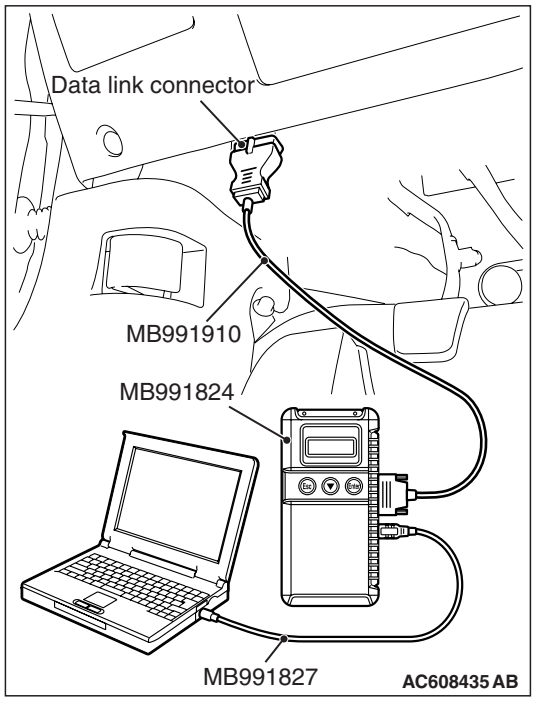
STEP 2. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 3.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 3. Using scan tool MB991958, diagnose the ETACS.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Diagnose the ETACS (Refer to GROUP 54A, ETACS, Diagnosis P.54A-482).
NO : Go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

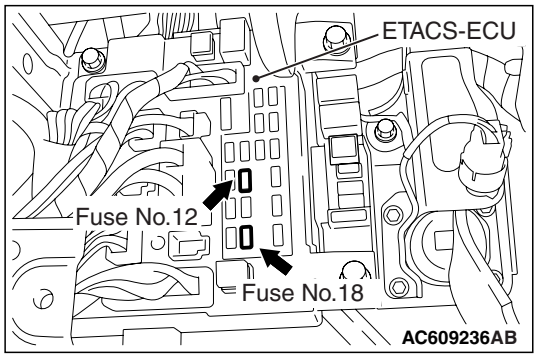
Q: Is the DTC set?

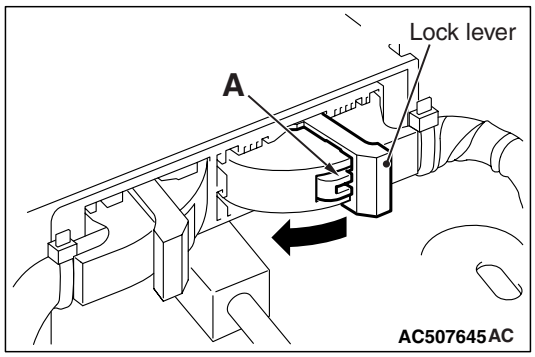
YES : Go to Step 5.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

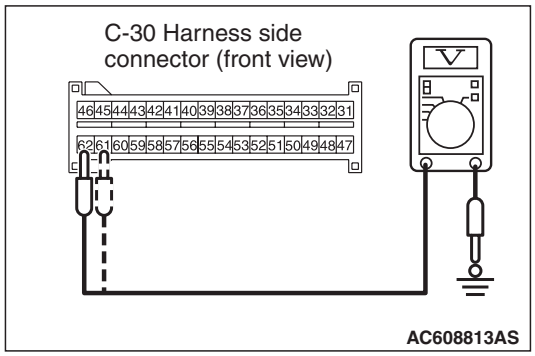
STEP 5. Check ETAS-ECU fuse number 12 or 18.

Q: Is the fuse burned out?

YES : Go to Step 8.
NO : Go to Step 6.







STEP 6. Check the power supply circuit for open circuit. Measure the voltage at SRS-ECU connector C-30.

(1) Disconnect the negative battery terminal.
(2) Disconnect SRS-ECU connector C-30.
(3) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.
(4) Connect the negative battery terminal.
(5) Turn the ignition switch to the "ON" position.

⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(6) Measure the voltage between C-30 harness side connector terminal No. 61 or 62 body ground.
Voltage should measure 9 volts or more.

Q: Is the measured voltage within the specified range?

YES : Erase the data link connector memory, and check the diagnostic trouble code. If DTC B210D set, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 12.
NO : Go to Step 7.

STEP 7. Check the harness for open circuit between SRS-ECU connector C-30 (terminal No. 61 or 62) and the ETACS-ECU connector C-313 (terminal No.4 or 2).

Q: Is the harness wire between SRS-ECU connector C-30 (terminal No.61 or 62) and the ETACS-ECU connector C-313 (terminal No.4 or 2) in good condition?

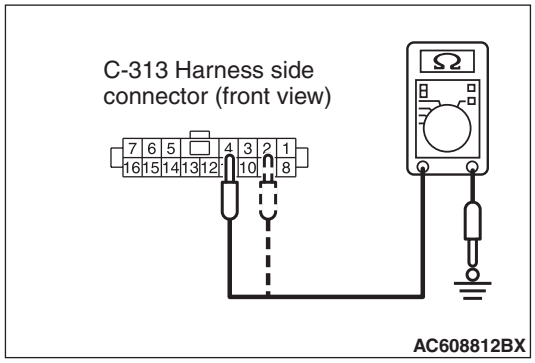
YES : Go to Step 12.
NO : Replace the harness wire between SRS-ECU connector C-30 and the ETACS-ECU connector C-313. Then go to Step 12.

STEP 8. Check a burned-out fuse.

(1) Replace the fuse.
(2) Turn the ignition switch to the "ON" position, wait for at least one minute and then turn the ignition switch to the "LOCK" (OFF) position.
(3) Check the fuse.

Q: Is the fuse in good condition?

YES : Go to Step 12.
NO : It is possible that the circuit using fuse No.12 or 18 is shorted, go to Step 9.



STEP 9. Check the SRS-ECU power supply circuit for short circuit to ground. Measure the resistance at the ETACS-ECU connector C-313.

(1) Disconnect ETACS-ECU connector C-313, and measure at the wiring harness side.

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(2) Check for continuity between terminal No. 2 or 4 and body ground.
It should be an open circuit.

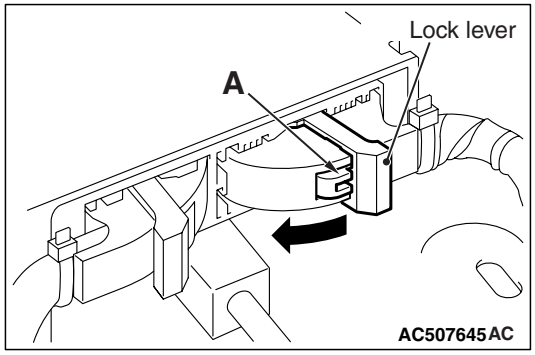
Q: Does continuity exist?

YES : Check the other circuit, which flows through fuse No.12 or 18. Then go to Step 12.

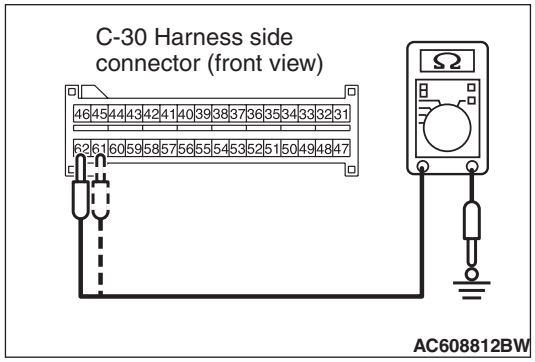
NO : Go to Step 10.

STEP 10. Check the power supply circuit for short circuit to ground. Measure the resistance at the SRS-ECU connector C-30.

(1) Disconnect SRS-ECU connector C-30, and measure at the wiring harness side.



(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.



⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly as the connector contact pressure may be weakened.

(3) Check for continuity between terminal No.61 or 62 and body ground.
It should be an open circuit.

Q: Does continuity exist?

YES : Go to Step 11.

NO : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B210D sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 12.

STEP 11. Check the harness for short circuit to ground between SRS-ECU connector C-30 (terminal No.61 or 62) and ETACS-ECU connector C-313 (terminal No.4 or 2).

Q: Is the harness wire between SRS-ECU connector C-30 (terminal No.61 or 62) and ETACS-ECU connector C-313 (terminal No.4 or 2) in good condition?

YES : Go to Step 12.

NO : Replace the harness wire between SRS-ECU connector C-30 and ETACS-ECU connector C-313. Then go to Step 12.

STEP 12. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

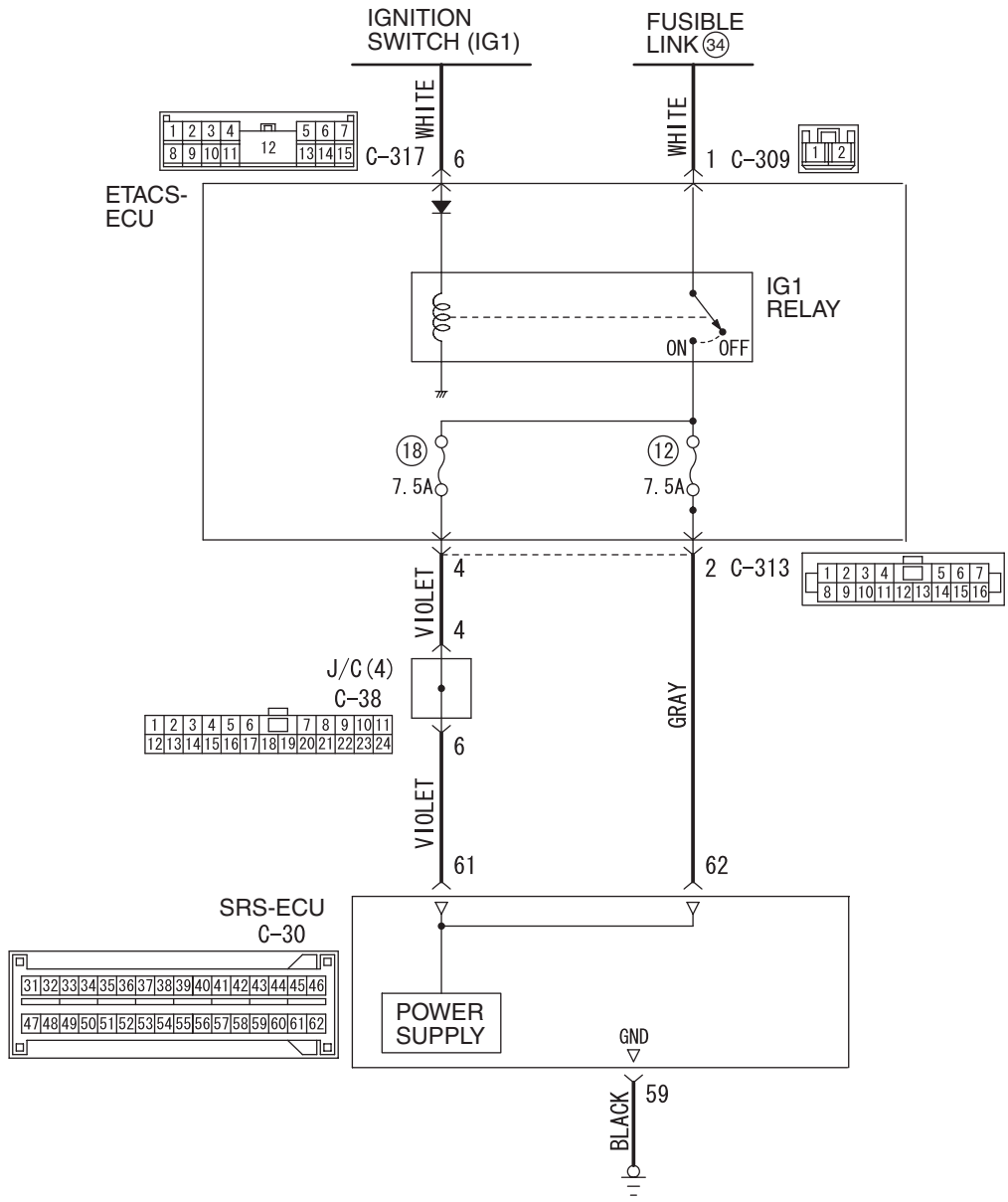
Q: Is DTC B210D set?

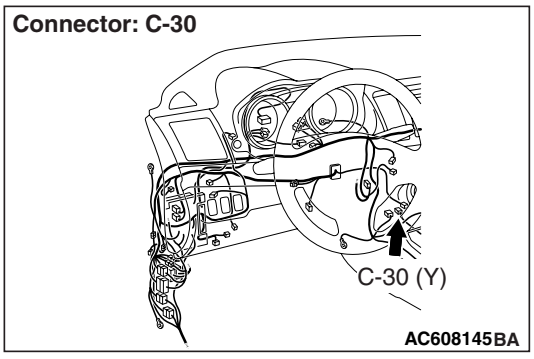
YES : Return to Step 1.

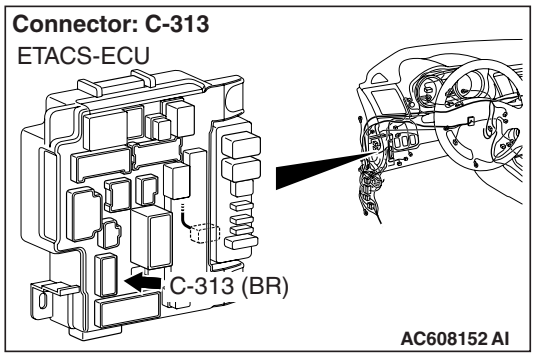
NO : The procedure is complete.

DTC B212C: Open Circuit to IG1 Power Supply (Fuse No.12 Circuit)
DTC B212D: Open Circuit to IG1 Power Supply (Fuse No.18 Circuit)

IG1 Power Supply Circuit







TSB Revision

⚠ CAUTION
If DTC B212C (Fuse No.12) or B212D (Fuse No.18) is set in the SRS-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION

- The SRS-ECU is powered from the ignition switch (IG1).
- The SRS-ECU power is supplied from two circuits. Even if one circuit is shut off, the air bag can inflate.

DTC SET CONDITIONS

This DTC is set if the voltage between the IG1 terminals (fuse No.12 circuit or fuse No.18 circuit) and ground is lower than a predetermined value for a continuous period of five second or more.

TROUBLESHOOTING HINTS

- Open circuit to power supply circuit
- Damaged wiring harnesses or connectors
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

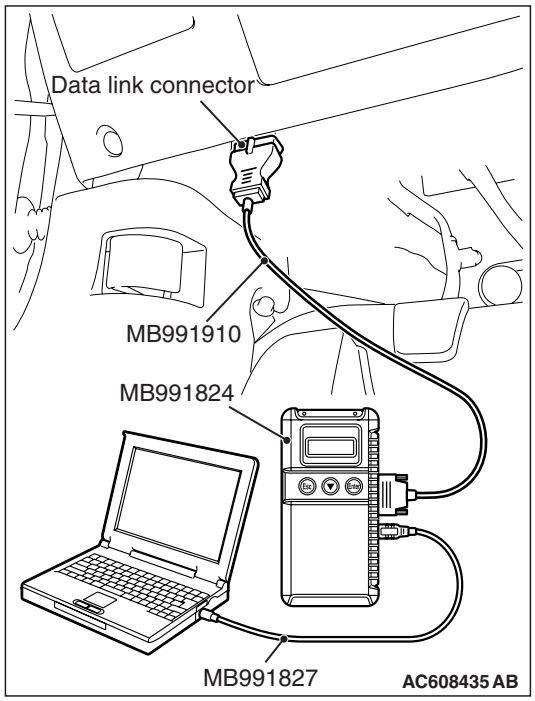
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Using scan tool MB991958, diagnose the ETACS.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Diagnose the ETACS (Refer to GROUP 54A, ETACS, Diagnosis P.54A-482).
NO : Go to Step 3).

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

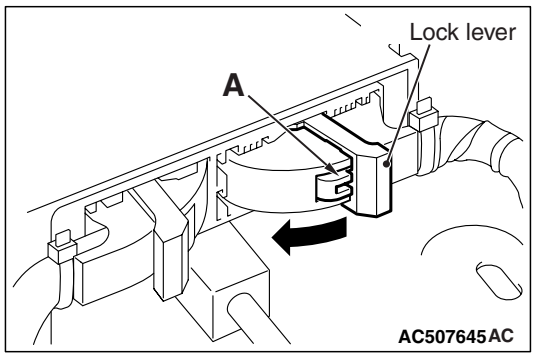
YES : Go to Step 4.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

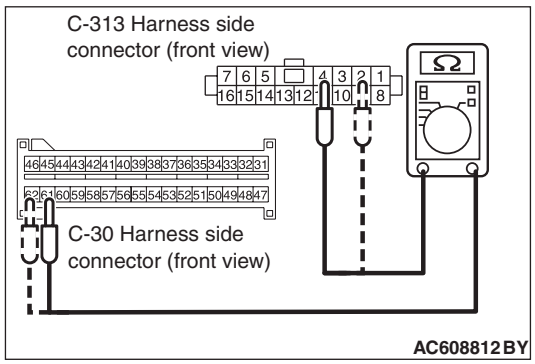
STEP 4. Check the harness for open circuit between SRS-ECU connector C-30 (terminal No.61 and 62) and the ETACS-ECU connector C-313 (terminal No.4 and 2).

(1) Disconnect SRS-ECU connector C-30.

(2) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connector.

(3) Disconnect the ETACS-ECU connector C-313.





(4) Check for continuity between the following terminals. It should be less than 2 ohms.

<Fuse No.12>

- SRS-ECU connector C-30 (terminal No.62) and the ETACS-ECU connector C-313 (terminal No.2)

<Fuse No.18>

- SRS-ECU connector C-30 (terminal No.61) and the ETACS-ECU connector C-313 (terminal No.4)

Q: Does continuity exist?

YES : Go to Step 5.

NO : Replace the harness wire between SRS-ECU connector C-30 and the ETACS-ECU connector C-313.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.

(2) Turn the ignition switch to the "ON" position.

(3) Check if the DTC is set.

(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC B212C <Fuse No.12 circuit> or B212D <Fuse No.18 circuit> set?

YES : Return to Step 1.

NO : The procedure is complete.

DTC B2207: Occupant Restraint Controller Internal 1
DTC B2208: Occupant Restraint Controller Internal 2
DTC B2209: Occupant Restraint Controller Internal 3
DTC B220A: Occupant Restraint Controller Internal 4
DTC B220B: Occupant Restraint Controller Firing Stored Energy
DTC B220C: Occupant Restraint Controller Accelerometer 1
DTC B220D: Occupant Restraint Controller Accelerometer 2

⚠ CAUTION
If DTCs are set in the SRS-ECU, always diagnose the CAN main bus line.

TROUBLE JUDGEMENT

The above DTC is set if an abnormality is detected in the circuit inside the SRS-ECU.

TROUBLESHOOTING HINTS

Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

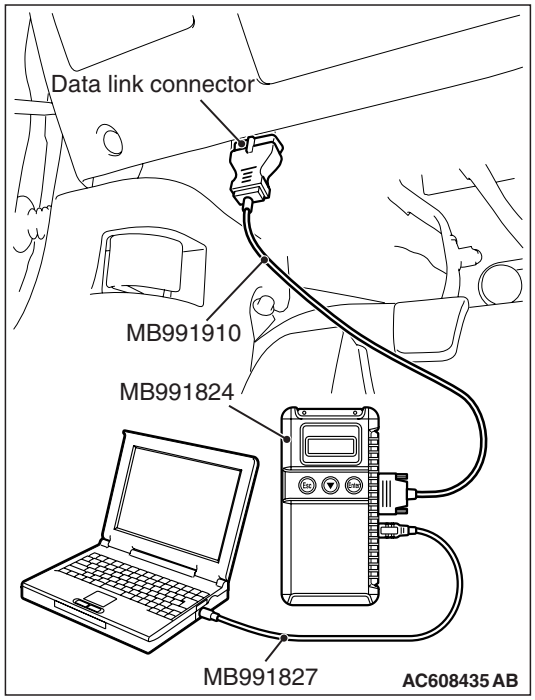
STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTCs set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B223D: OCM DTC Present

⚠ CAUTION
If DTC B223D is set in the SRS-ECU, always diagnose the CAN main bus line.

DTC SET CONDITION

It is set if a DTC occurs in the occupant classification-ECU.

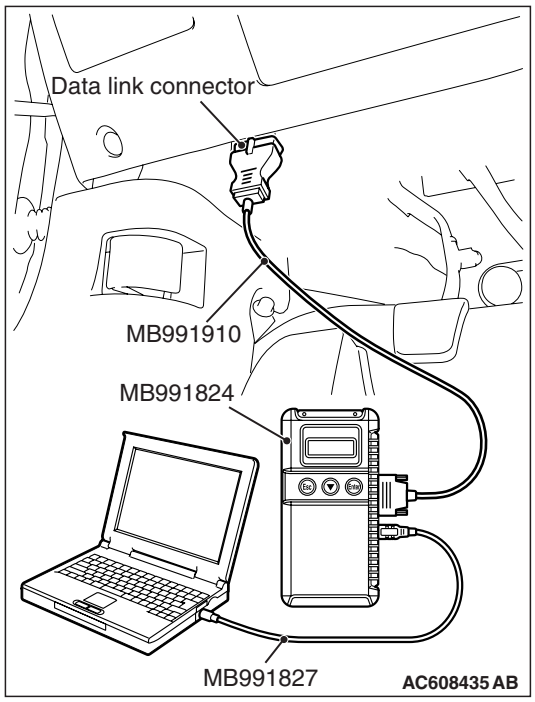
TROUBLESHOOTING HINTS

- Malfunction of the SRS-ECU
- Malfunction of the occupant classification-ECU

DIAGNOSIS

Required Special Tool:

- MB991958 Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827 M.U.T.-III USB Cable
  - MB991910 M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.
Check that the DTC is set in the occupant classification-ECU.

Q: Is the DTC set?

YES : Diagnose the occupant classification-ECU (Refer to P.52B-364).
NO : Go to Step 3

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-13).

DTC U0019: Bus Off (CAN-B)

⚠ CAUTION

- **If the DTC U0019 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

If the CAN-B circuit malfunction occurs, the SRS-ECU sets the DTC U0019.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

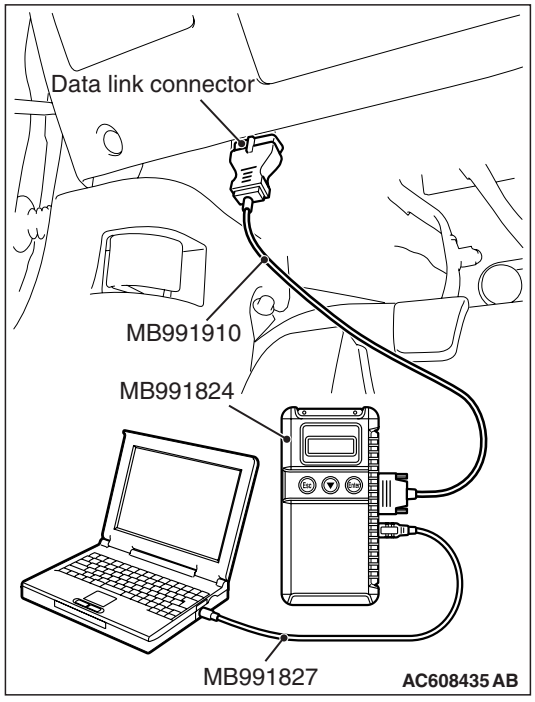
TROUBLESHOOTING HINTS

The CAN bus line may be defective

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.
Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : The trouble can be an intermittent malfunction (Refer to GROUP 00 –How to use Troubleshooting/inspection Service Points –How to Cope with Intermittent Malfunction P.00-13).

DTC U0141: ETACS CAN Timeout

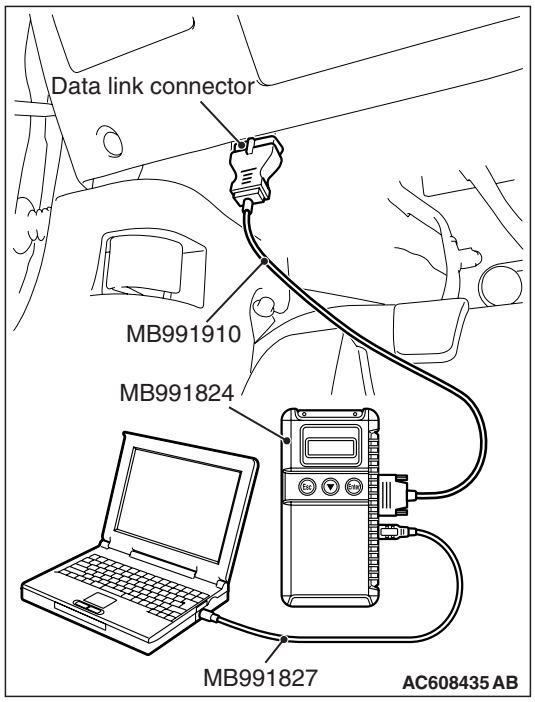
⚠ CAUTION
- **If the DTC U0141 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION
If the signal from ETACS-ECU cannot be received, the SRS-ECU sets the DTC U0141.

JUDGEMENT CRITERIA
Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS
- The CAN bus line may be defective
- The ETACS-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS
Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the ETACS-ECU diagnostic trouble code

Check again if the DTC is set to the ETACS-ECU.

Q: Is the DTC set?

YES : Diagnose the ETACS-ECU.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-13).

DTC U0154: Occupant Classification-ECU CAN Timeout

⚠ CAUTION

- **If the DTC U0154 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

When the signals from occupant classification-ECU cannot be received, the SRS-ECU sets the DTC U0154.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

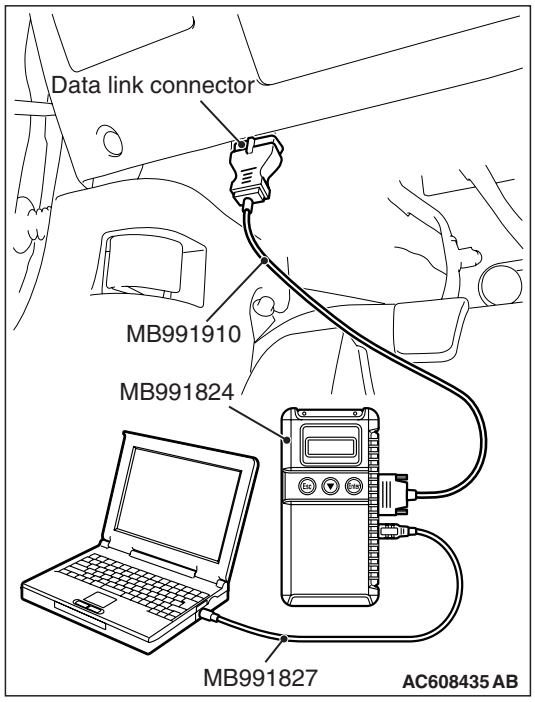
TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The occupant classification-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the occupant classification-ECU diagnostic trouble code.
Check if the DTC is set to the occupant classification-ECU.

Q: Is the DTC set?

YES : Diagnose the occupant classification-ECU.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-13).

DTC U0155: Combination Meter CAN Timeout

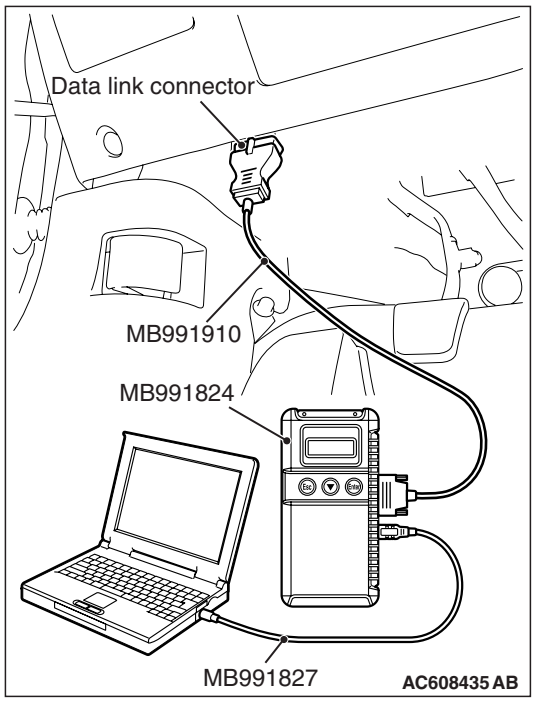
⚠ CAUTION
- **If the DTC U0155 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

TROUBLE JUDGEMENT
If the signal from combination meter cannot be received, the SRS-ECU sets the DTC U0155.

JUDGEMENT CRITERIA
Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS
- The CAN bus line may be defective
- The combination meter may be defective
- The SRS-ECU may be defective

DIAGNOSIS
Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the combination meter diagnostic trouble code

Check if DTC is set to the combination meter.

Q: Is the DTC set?

YES : Diagnose the combination meter.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-13).

DTC U0164: A/C-ECU CAN Timeout

⚠ CAUTION

- **If the DTC U0164 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

If the signal from A/C-ECU cannot be received, the SRS-ECU sets the DTC U0164.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

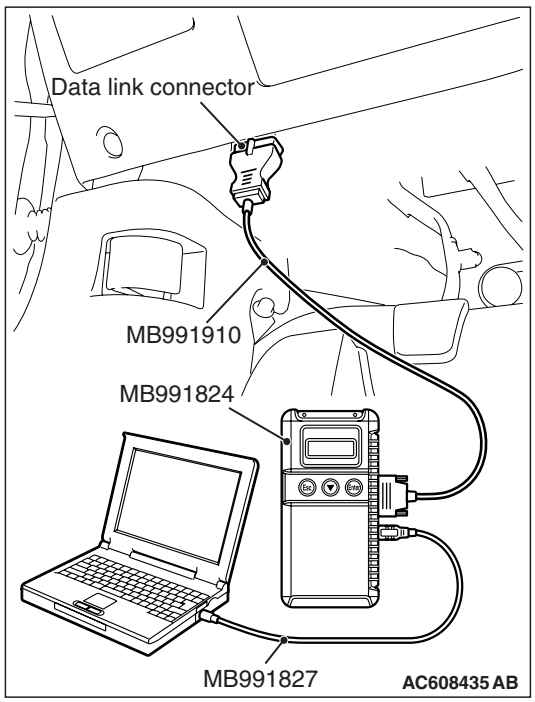
TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The A/C-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the Scan Tool (M.U.T.-III) P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the A/C diagnostic trouble code

Check if DTC is set to the A/C-ECU.

Q: Is the DTC set?

YES : Diagnose the A/C.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-13).

DTC U0168: KOS-ECU or WCM CAN Timeout

⚠ CAUTION

- **If DTC U0168 is set, be sure to diagnose the CAN bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

If the signal from KOS-ECU or WCM cannot be received, the SRS-ECU sets the DTC U0168.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

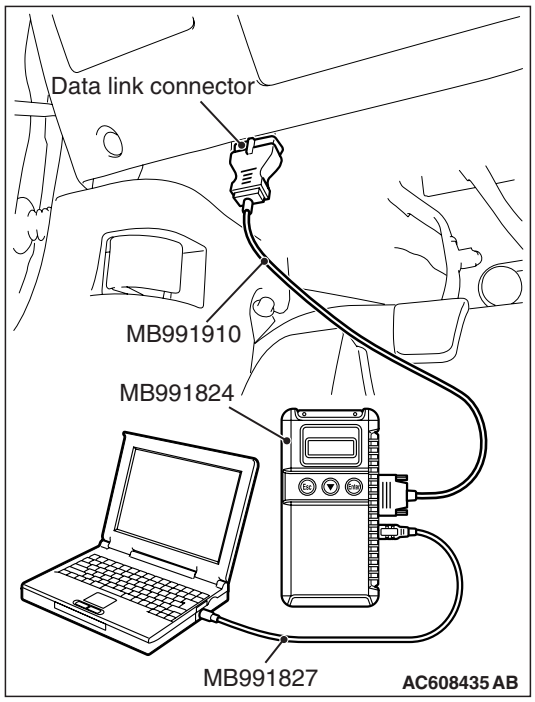
TROUBLESHOOTING HINTS

- Malfunction of CAN bus line may be defective.
- Malfunction of the KOS-ECU may be defective.
- Malfunction of the WCM may be defective.
- Malfunction of SRS-ECU may be defective.

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the Scan Tool (M.U.T.-III) P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the KOS-ECU or WCM diagnostic trouble code

Check again if the DTC is set to the KOS-ECU or WCM.

Q: Is the DTC set?

YES : Diagnose the KOS or WCM.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

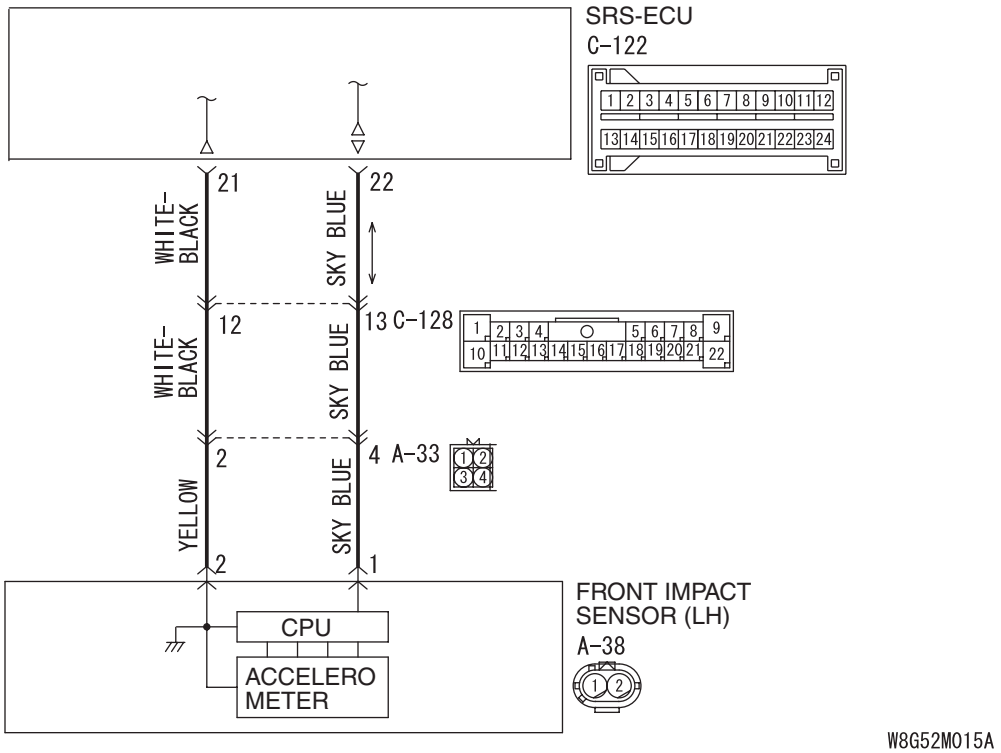
Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

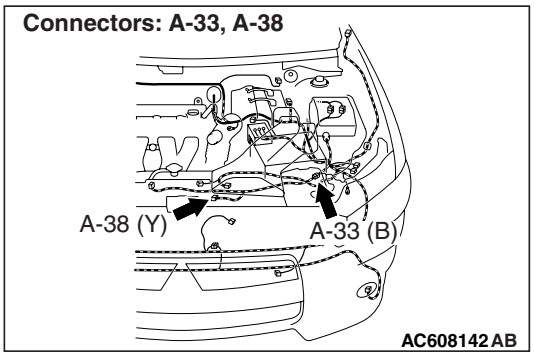
Q: Is the DTC set?

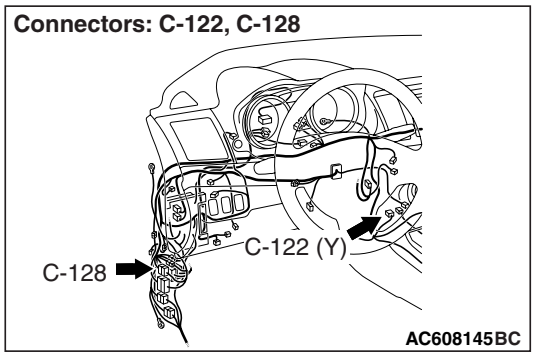
YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-13).

DTC U0170: Front Impact Sensor (LH) Communication Error

Front Impact Sensor (LH) Circuit







⚠ CAUTION

If DTC U0170 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

If an impact of set value or more is detected, the front impact sensor sends the coded acceleration data to SRS-ECU. Based on the acceleration data, SRS-ECU determines the necessity of driver's and front passenger's air bag deployment, and then turns ON the power supply circuit to the inflator.

DTC SET CONDITIONS

These DTCs are set if communication between the front impact sensor (LH) and the SRS-ECU is not possible or faulty.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the front impact sensor (LH)
- Malfunction of the SRS-ECU

TSB Revision

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

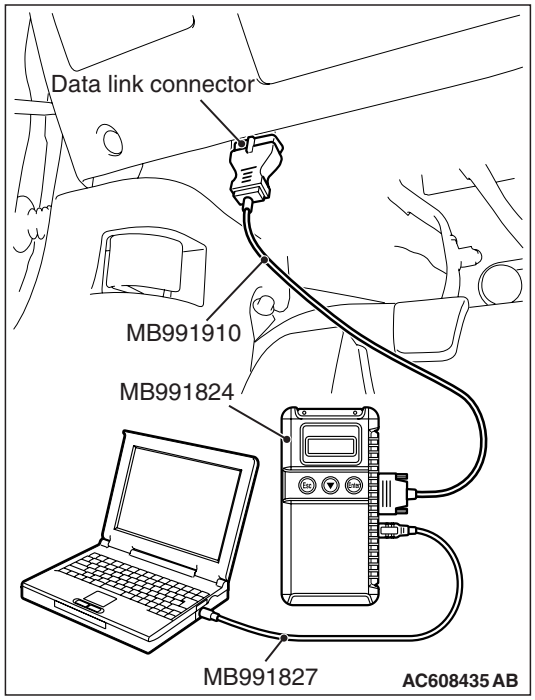
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check for any diagnostic trouble code.

Check the front impact sensor (LH).
(1) Disconnect the negative battery terminal.
(2) Replace the front impact sensor (LH) with the front impact sensor (RH).
(3) Connect the negative battery terminal.
(4) Erase diagnostic trouble code from memory, and check the diagnostic trouble code.

Q: Is DTC U0170 set?

YES : Replace the front impact sensor (LH) with a new one (Refer to P.52B-361). Go to Step 5.
NO : Go to Step 4.

STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-122 (terminal No.21 and 22) and front impact sensor (LH) connector A-38 (terminal No.2 and 1).

NOTE: After inspecting intermediate connector A-33, C-128 inspect the wiring harness. If the intermediate connector A-33, C-128 is damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.21 and 22) and front impact sensor (LH) connector A-38 (terminal No.2 and 1) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC U0170 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 5.
NO : Replace the harness wires between SRS-ECU connector C-122 and front impact sensor (LH) connector A-38. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

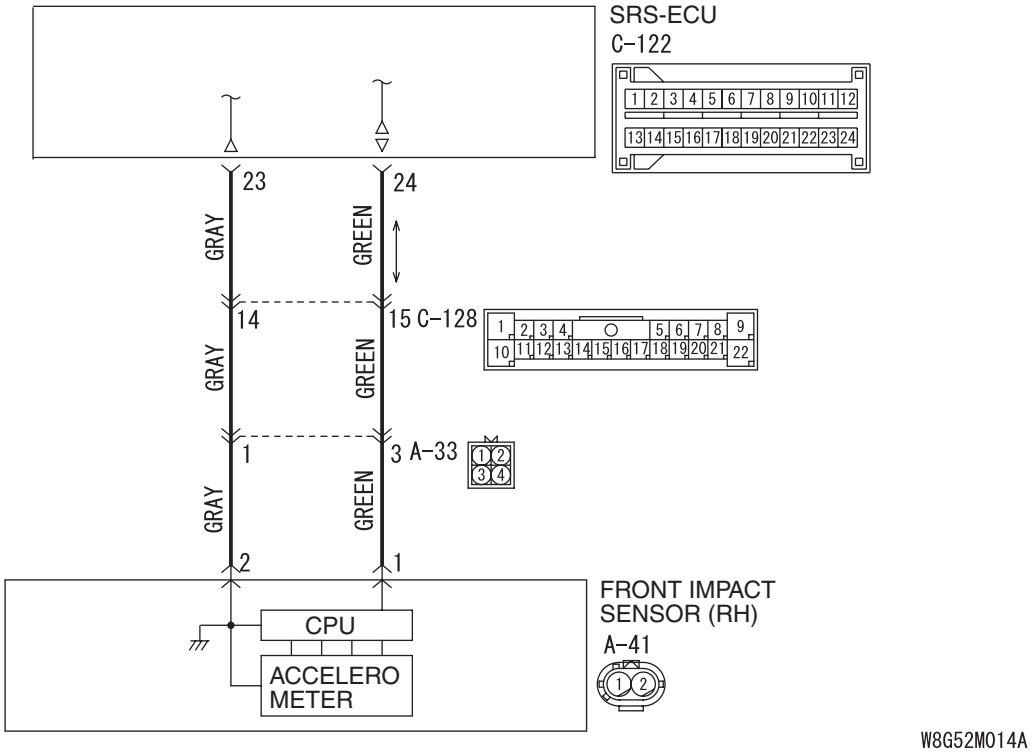
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

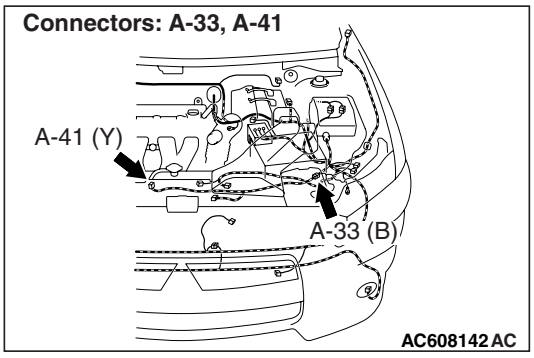
Q: Is DTC U0170 set?

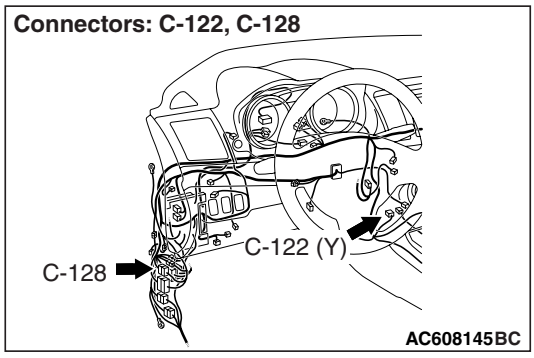
YES : Return to Step 1.
NO : The procedure is complete.

DTC U0171: Front Impact Sensor (RH) Communication Error

Front Impact Sensor (RH) Circuit







⚠ CAUTION

If DTC U0171 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

If an impact of set value or more is detected, the front impact sensor sends the coded acceleration data to SRS-ECU. Based on the acceleration data, SRS-ECU determines the necessity of driver's and front passenger's air bag deployment, and then turns ON the power supply circuit to the inflator.

DTC SET CONDITIONS

These DTCs are set if communication between the front impact sensor (RH) and the SRS-ECU is not possible or faulty.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the front impact sensor (RH)
- Malfunction of the SRS-ECU

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DIAGNOSIS

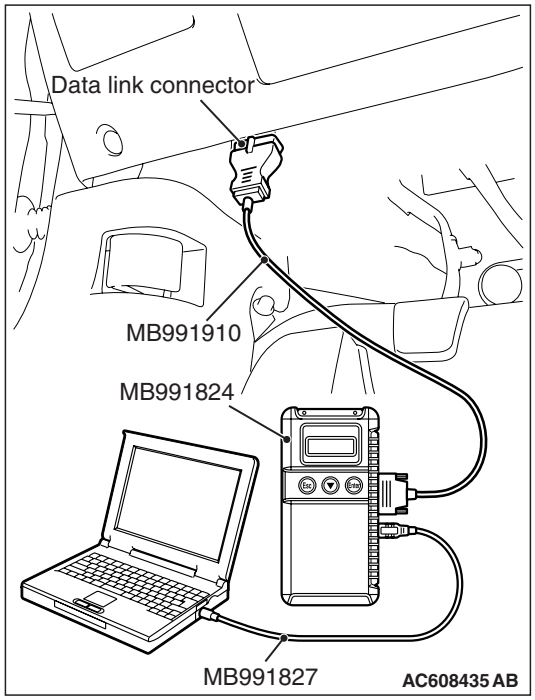
Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.



(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check for any diagnostic trouble code.

Check the front impact sensor (RH).
(1) Disconnect the negative battery terminal.
(2) Replace the front impact sensor (RH) with the front impact sensor (LH).
(3) Connect the negative battery terminal.
(4) Erase diagnostic trouble code from memory, and check the diagnostic trouble code.

Q: Is DTC U0171 set?

YES : Replace the front impact sensor (RH) with a new one (Refer to P.52B-361). Go to Step 5.
NO : Go to Step 4.

STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-122 (terminal No.23 and 24) and front impact sensor (RH) connector A-41 (terminal No.2 and 1).

NOTE: After inspecting intermediate connector A-33, C-128 inspect the wiring harness. If the intermediate connector A-33, C-128 is damaged, repair or replace it.

Q: Are the harness wires between SRS-ECU connector C-122 (terminal No.23 and 24) and front impact sensor (RH) connector A-41 (terminal No.2 and 1 in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC U0171 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 5.
NO : Replace the harness wires between SRS-ECU connector C-122 and front impact sensor (RH) connector A-41. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

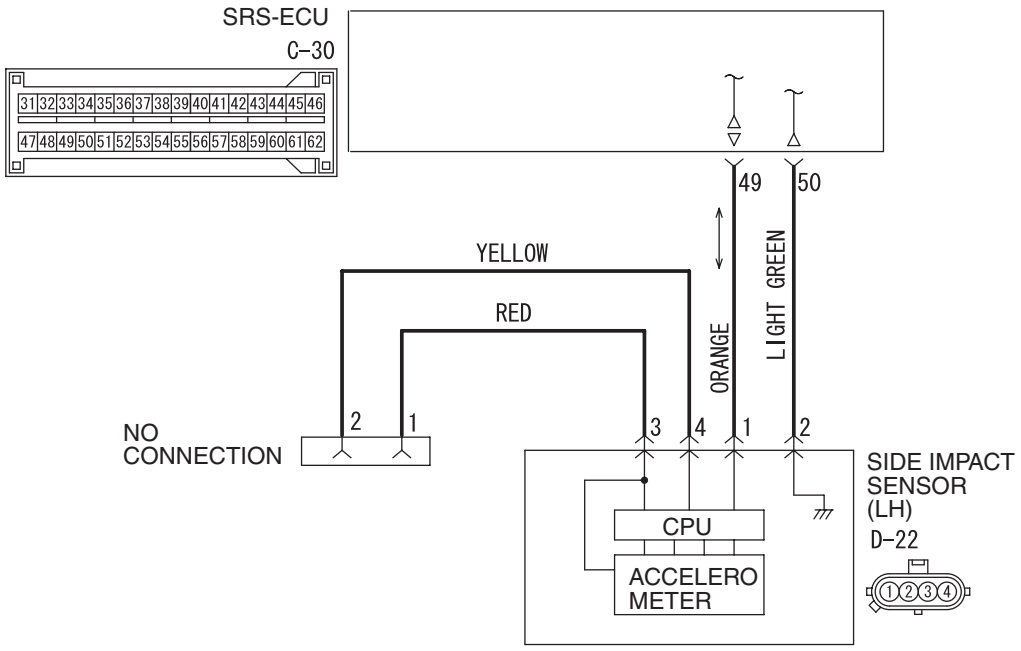
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC U0171 set?

YES : Return to Step 1.
NO : The procedure is complete.

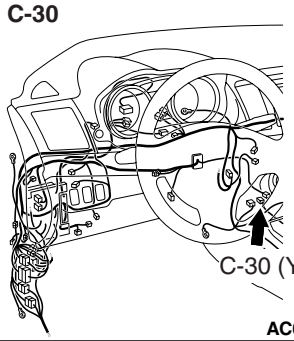
DTC U0172: Side Impact Sensor (LH) Communication Error

Side Impact Sensor (LH) Circuit



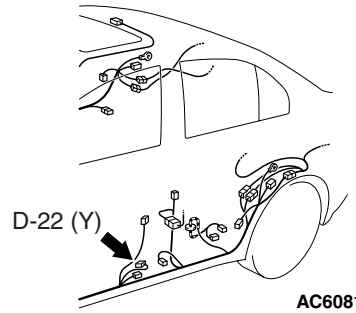
W8G52M016A

Connector: C-30



AC608145BA

Connector: D-22



AC608166AI

⚠ CAUTION

If DTC U0172 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

If an impact of set value or more is detected, the side impact sensor sends the coded acceleration data to SRS-ECU. Based on the acceleration data, SRS-ECU determines the necessity of side-airbag and curtain air bag deployment, and then turns ON the power supply circuit to the inflator.

DTC SET CONDITIONS

These DTCs are set if communication between the side impact sensor (LH) and the SRS-ECU is not possible or faulty.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the side impact sensor (LH)
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)

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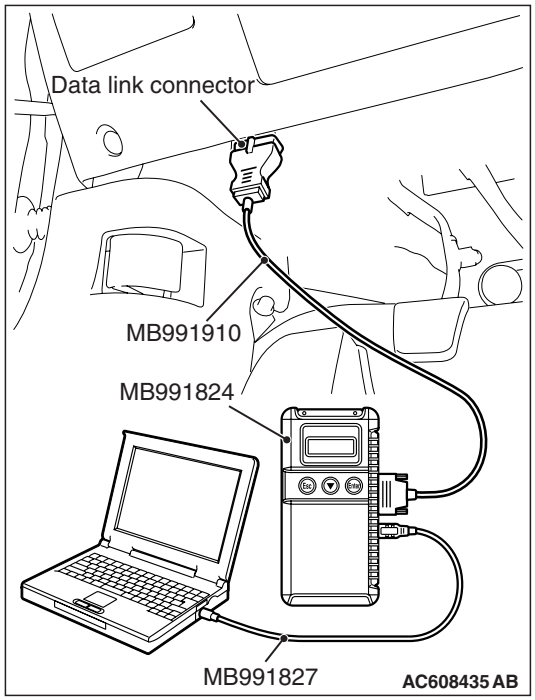
- MB991827: M.U.T.-III USB Cable
- MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check for any diagnostic trouble code.

Check the side impact sensor (LH).

(1) Disconnect the negative battery terminal.
(2) Replace the side impact sensor (LH) with the side impact sensor (RH).
(3) Connect the negative battery terminal.
(4) Erase diagnostic trouble code from memory, and check the diagnostic trouble code.

Q: Is DTC U0172 set?

YES : Replace the side impact sensor (LH) with a new one (Refer to P.52B-382). Go to Step 5.
NO : Go to Step 4.

STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-30 (terminal No.49 and 50) and side impact sensor (LH) connector D-22 (terminal No.1 and 2).

Q: Are the harness wires between SRS-ECU connector C-30 (terminal No.49 and 50) and side impact sensor (LH) connector D-22 (terminal No.1 and 2) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC U0172 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 5.
NO : Replace the harness wires between SRS-ECU connector C-30 and side impact sensor (LH) connector D-22. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

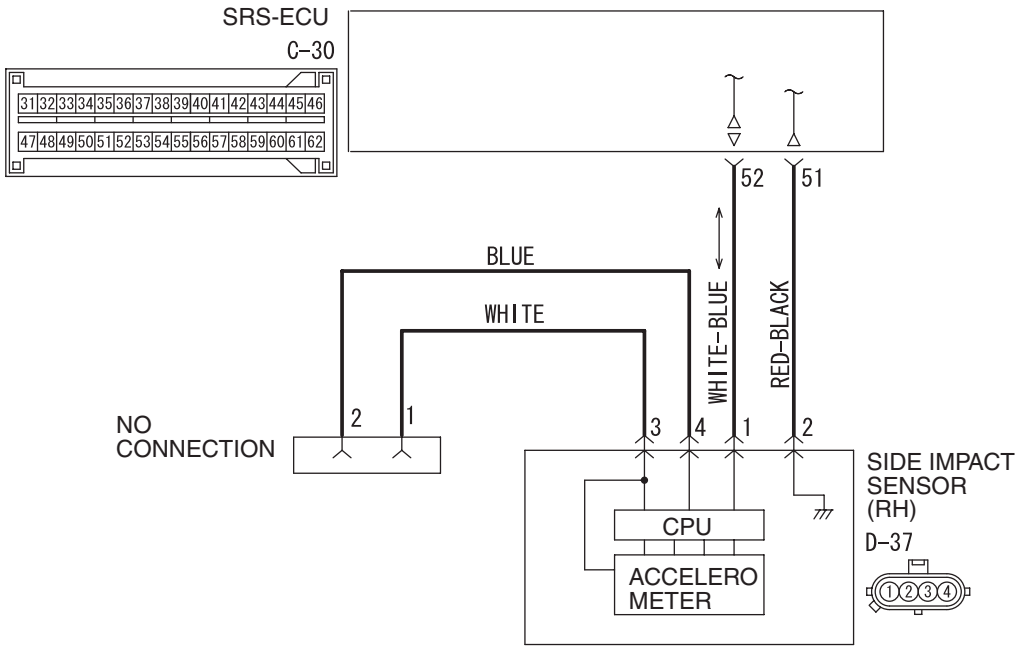
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC U0172 set?

YES : Return to Step 1.
NO : The procedure is complete.

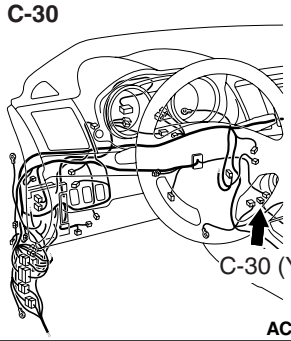
DTC U0175: Side Impact Sensor (RH) Communication Error

Side Impact Sensor (RH) Circuit



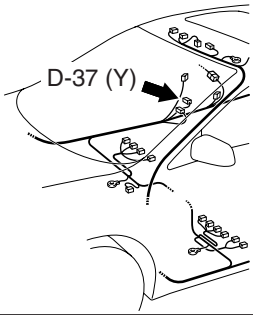
W8G52M017A

Connector: C-30



AC608145BA

Connector: D-37



AC608165AS

⚠ CAUTION

If DTC U0175 is set in the SRS-ECU, always diagnose the CAN main bus line.

CIRCUIT OPERATION

If an impact of set value or more is detected, the side impact sensor sends the coded acceleration data to SRS-ECU. Based on the acceleration data, SRS-ECU determines the necessity of side air bag and curtain air bag deployment, and then turns ON the power supply circuit to the inflator.

DTC SET CONDITIONS

These DTCs are set if communication between the side impact sensor (RH) and the SRS-ECU is not possible or faulty.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Malfunction of the side impact sensor (RH)
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)

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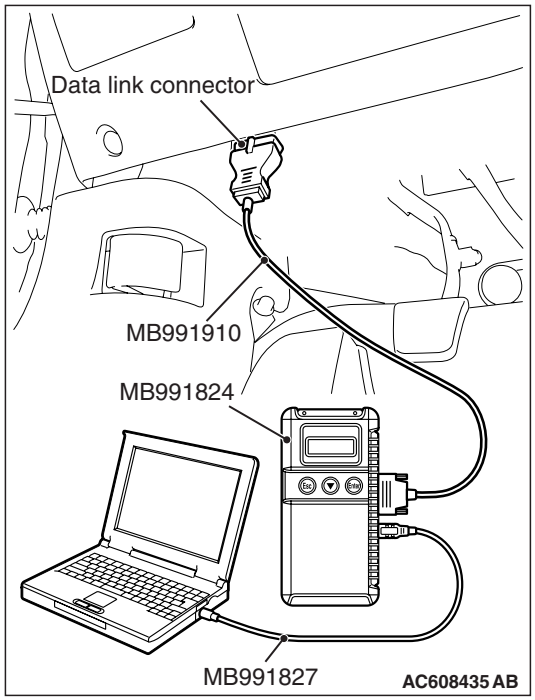
- MB991827: M.U.T.-III USB Cable
- MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check for any diagnostic trouble code.

Check the side impact sensor (RH).
(1) Disconnect the negative battery terminal.
(2) Replace the side impact sensor (RH) with the side impact sensor (LH).
(3) Connect the negative battery terminal.
(4) Erase diagnostic trouble code from memory, and check the diagnostic trouble code.

Q: Is DTC U0175 set?

YES : Replace the side impact sensor (RH) with a new one (Refer to P.52B-382). Go to Step 5.
NO : Go to Step 4.

STEP 4. Check the harness wires for open circuit or short circuit between SRS-ECU connector C-30 (terminal No.51 and 52) and side impact sensor (RH) connector D-37 (terminal No.2 and 1).

Q: Are the harness wires between SRS-ECU connector C-30 (terminal No.51 and 52 and side impact sensor (RH) connector D-37 (terminal No.2 and 1) in good condition?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC U0175 sets, replace the SRS-ECU (Refer to P.52B-364). Then go to Step 5.
NO : Replace the harness wires between SRS-ECU connector C-30 and side impact sensor (RH) connector D-37. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is DTC U0175 set?

YES : Return to Step 1.
NO : The procedure is complete.

DTC U0184: Audio CAN Timeout

⚠ CAUTION

- **If the DTC U0184 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

When the signals from radio and CD player or CD changer cannot be received, the SRS-ECU sets the DTC U0184.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

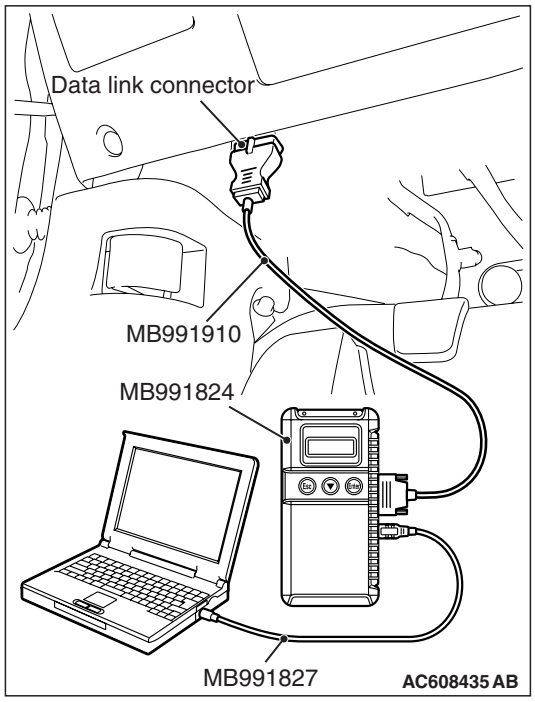
TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The radio and CD player or CD changer may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the audio diagnostic trouble code

Check if the DTC is set to the audio.

Q: Is the DTC set?

YES : Diagnose the radio and CD player.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-13).

DTC U0195: Satellite Radio Tuner CAN Timeout

⚠ CAUTION

- **If the DTC U0195 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

TROUBLE JUDGEMENT

If the signal from satellite radio tuner cannot be received, the SRS-ECU sets the DTC U0195.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

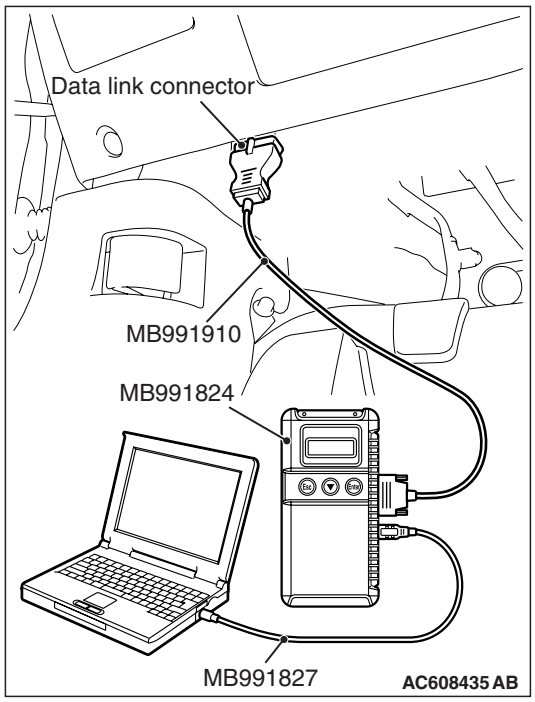
TROUBLESHOOTING HINTS

- The CAN bus may be defective.
- The satellite radio tuner may be defective.
- The SRS-ECU may be defective.

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the satellite radio tuner diagnostic trouble code.

Check if DTC is set to the satellite radio tuner.

Q: Is the DTC set?

YES : Diagnose the satellite radio.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : The trouble can be an intermittent malfunction such as a poor connection or open circuit in the CAN bus lines between the satellite radio tuner and the ETACS-ECU (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13)

DTC U0197: Hands Free Module CAN Timeout

⚠ CAUTION

- **If the DTC U0197 is set, be sure to diagnose the CAN main bus line.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

When the signals from hands free module cannot be received, the SRS-ECU sets the DTC U0197.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if SRS-ECU becomes unable to perform the normal data transmission, SRS-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS

- The CAN bus line may be defective.
- The hands free module may be defective.
- The SRS-ECU may be defective.

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line

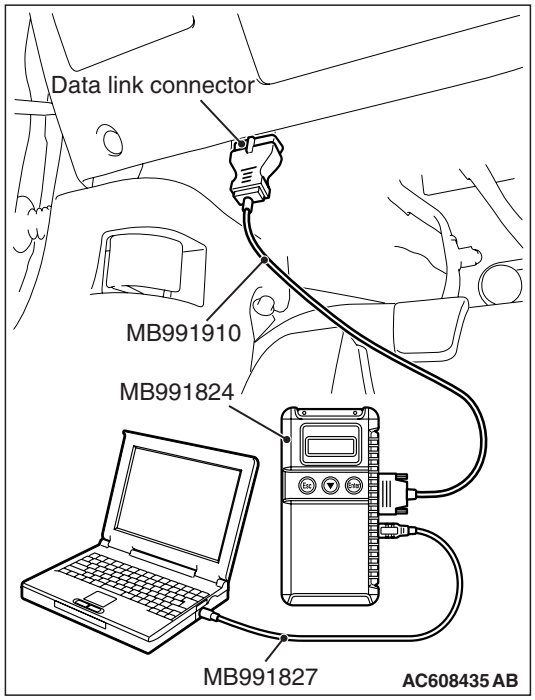
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Using scan tool MB991958, read the hands free module diagnostic trouble code

Check if the DTC is set to the hands free module.

Q: Is the DTC set?

YES : Diagnose the hands-free cellular phone system.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-13).

DTC U1414: Defective Coding Data

⚠ CAUTION

- **If the DTC U1414 is set, diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

If the vehicle information data is not registered to the SRS-ECU, the SRS-ECU sets the DTC U1414.

JUDGEMENT CRITERIA

When the coding data (vehicle information) from ETACS-ECU is not received, SRS-ECU determines that the abnormality is present.

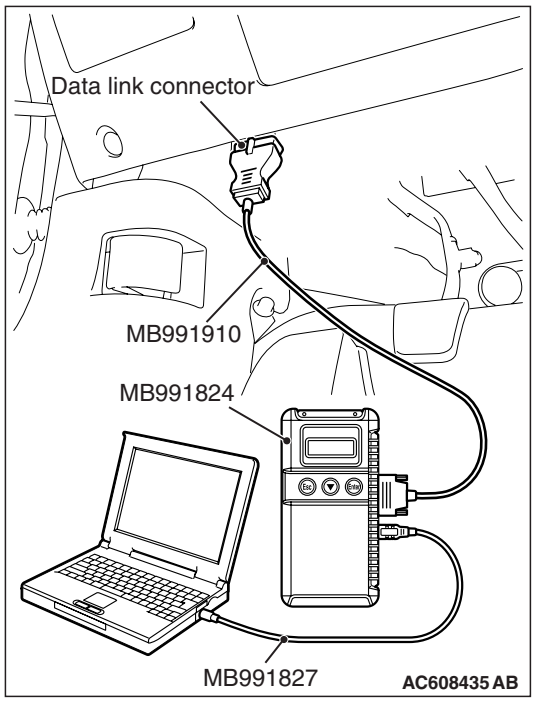
TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The ETACS-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the ETACS-ECU diagnostic trouble code

Check if DTC is set to the ETACS-ECU.

Q: Is the DTC set?

YES : Diagnose the ETACS-ECU.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU (Refer to P.52B-364).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-13).

DTC U1415: Coding not Completed/Data Fail

⚠ CAUTION

- **If the DTC U1415 is set, diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

If the vehicle information data is not registered to the SRS-ECU, the SRS-ECU sets the DTC U1415.

JUDGEMENT CRITERIA

With the global coding counter value "0", if all the global coding data (vehicle information) are not stored, the SRS-ECU determines that a problem has occurred.

TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The ETACS-ECU may be defective
- The SRS-ECU may be defective

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line

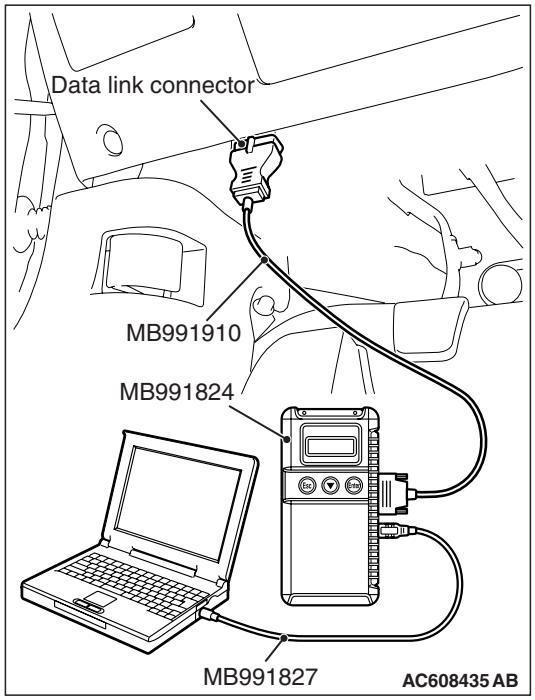
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Using scan tool MB991958, read the ETACS-ECU diagnostic trouble code

Check if DTC is set to the ETACS-ECU.

Q: Is the DTC set?

YES : Diagnose the ETACS-ECU.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the SRS-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the SRS-ECU.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-13).

DIAGNOSTIC TROUBLE CODE CHART <Occupant classification-ECU>

M1524003301316

⚠ CAUTION

During diagnosis, a DTC code associated with another system may be set when the ignition switch is turned on with connector(s) disconnected. After completing the repair, confirm all systems for DTC code(s). If DTC code(s) are set, erase them all.

Inspect according to the inspection chart that is appropriate for the DTC.

Diagnostic trouble Code No.	Inspection item	Reference page
B1B78	Passenger seat weight sensor (front: LH) performance	P.52B-282
B1B79	Passenger seat weight sensor (ground side) short-circuited (front: LH)	P.52B-286
B1B7A	Passenger seat weight sensor (power supply side) short-circuited (front: LH)	P.52B-290
B1B7D	Passenger seat weight sensor (front: RH) performance	P.52B-282
B1B7E	Passenger seat weight sensor (ground side) short-circuited (front: RH)	P.52B-286
B1B7F	Passenger seat weight sensor (power supply side) short-circuited (front: RH)	P.52B-290
B1B82	Passenger seat weight sensor (rear: LH) performance	P.52B-282
B1B83	Passenger seat weight sensor (ground side) short-circuited (rear: LH)	P.52B-286
B1B84	Passenger seat weight sensor (power supply side) short-circuited (rear: LH)	P.52B-290
B1B87	Passenger seat weight sensor (rear: RH) performance	P.52B-282
B1B88	Passenger seat weight sensor (ground side) short-circuited (rear: RH)	P.52B-286
B1B89	Passenger seat weight sensor (power supply side) short-circuited (rear: RH)	P.52B-290
B1B8C	Seat slide sensor circuit Performance	P.52B-295
B1B8D	Seat slide sensor Open circuit	P.52B-299
B1B8E	Seat slide sensor short circuit	P.52B-302
B1B91	Driver seat slide sensor Configuration Mismatch	P.52B-305
B1BA7	Occupant classification system Verification Required	P.52B-306
B1BA8	Occupant classification-ECU out of Calibration/Not calibrated	P.52B-308
B1BBA	Passenger seat weight sensor supply circuit	P.52B-309
B1BBC	Occupant classification system negative system weight	P.52B-311
B1BBD	Occupant classification -ECU Current configuration table Unprogrammed	P.52B-313
B1C23	Passenger seat weight sensor (front: LH) configuration mismatch	P.52B-314
B1C24	Passenger seat weight sensor (front: RH) configuration mismatch	P.52B-314

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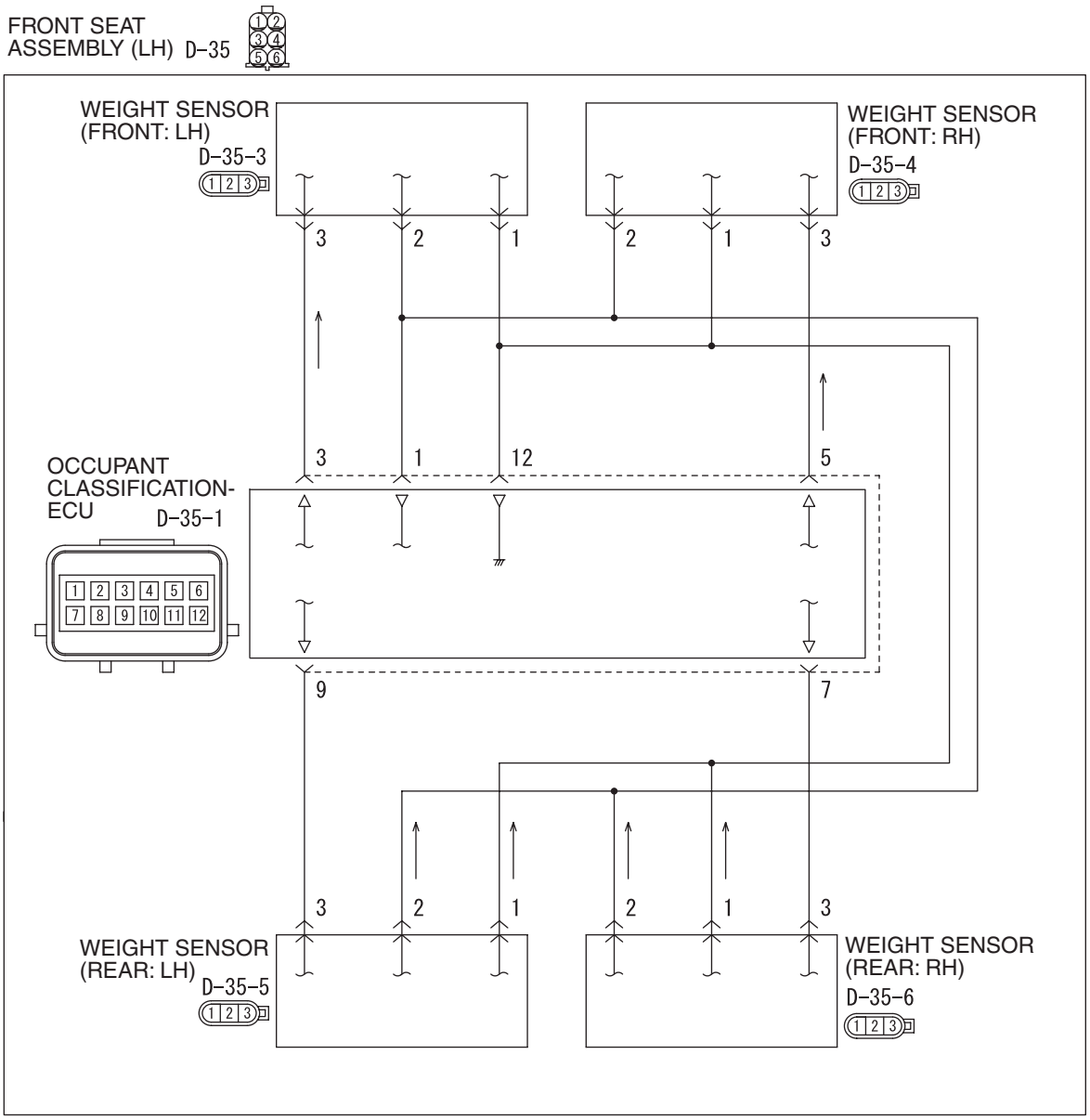
Diagnostic trouble Code No.	Inspection item	Reference page
B1C25	Passenger seat weight sensor (rear: LH) configuration mismatch	P.52B-314
B1C26	Passenger seat weight sensor (rear: RH) configuration mismatch	P.52B-314
B1CB2	Occupant classification-ECU parameter table incompatible	P.52B-316
B210D	Battery voltage Low	P.52B-318
B210E	Battery voltage High	P.52B-318
B2206	Chassis number does not match	P.52B-322
B2212	Occupant classification-ECU internal	P.52B-316
B2250	Occupant classification-ECU not programmed/Flash required	P.52B-316
B2262	Occupant classification-ECU electrostatic discharge event detected	P.52B-316
U0020	CAN-B Bus off performance	P.52B-323
U0021	CAN-B Bus(+) circuit open	P.52B-323
U0022	CAN-B Bus(+) shorted to circuit ground	P.52B-323
U0023	CAN-B Bus(+) shorted to circuit Power Supply	P.52B-323
U0024	CAN-B Bus(-) circuit Open	P.52B-323
U0025	CAN-B Bus(-) shorted to circuit ground	P.52B-323
U0026	CAN-B Bus(-) shorted to circuit Power Supply	P.52B-323
U0141	ETACS CAN timeout	P.52B-325
U0151	SRS-ECU CAN timeout	P.52B-326
U0155	Combination meter CAN timeout	P.52B-328
U0164	A/C-ECU CAN timeout	P.52B-329
U0168	KOS-ECU or WCM CAN timeout	P.52B-331
U0184	Audio CAN timeout	P.52B-332
U0195	Satellite Radio tuner CAN timeout	P.52B-334
U0197	Hands free module CAN timeout	P.52B-335
U0245	Audio visual navigation unit CAN timeout	P.52B-337
U1419	The signal from a weight sensor (front: LH) is unusual	P.52B-338
U141A	The signal from a weight sensor (front: RH) is unusual	P.52B-338
U141B	The signal from a weight sensor (rear: LH) is unusual	P.52B-338
U141C	The signal from a weight sensor (rear: RH) is unusual	P.52B-338
U1423	The signal from a weight sensor is unusual	P.52B-338

DIAGNOSTIC TROUBLE CODE PROCEDURES <OCCUPANT CLASSIFICATION-ECU>

DTC B1B78: Passenger Seat Weight Sensor (front: LH) Performance
DTC B1B7D: Passenger Seat Weight Sensor (front: RH) Performance
DTC B1B82: Passenger Seat Weight Sensor (rear: LH) Performance
DTC B1B87: Passenger Seat Weight Sensor (rear: RH) Performance

Weight Sensor


FRONT SEAT ASSEMBLY (LH) D-35
WEIGHT SENSOR (FRONT: LH) D-35-3
WEIGHT SENSOR (FRONT: RH) D-35-4
OCCUPANT CLASSIFICATION-ECU D-35-1
WEIGHT SENSOR (REAR: LH) D-35-5
WEIGHT SENSOR (REAR: RH) D-35-6

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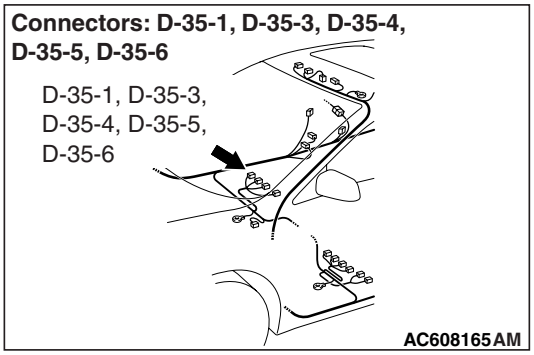


⚠ CAUTION

If DTC B1B78, B1B7D, B1B82 or B1B87 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION

The load data from the weight sensor is classified with the occupant classification-ECU, and its classified information is send to SRS-ECU by CAN bus line. The SRS-ECU determines the air bag deployment based on this classified information, and controls the power supply circuit to the inflator.

DTC SET CONDITIONS

This DTC is set if the weight sensor output voltage is out of the range (guideline: 1 to 3.5 V).

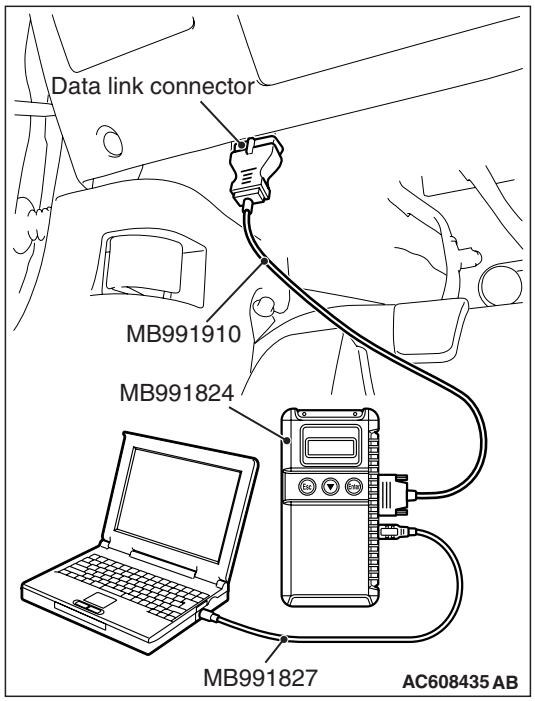
TROUBLESHOOTING HINTS

- The weight sensor may be defective.
- Occupant classification-ECU may be defective.
- The wiring harness or connectors may have loose, corroded, or damaged terminals, or terminals pushed back in the connector

DIAGNOSIS

Required Special Tools:

- MB991958 Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827 M.U.T.-III USB Cable
  - MB991910 M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check occupant classification-ECU connector D-35-1 and weight sensor connector D-35-3, D-35-4, D-35-5 or D-35-6 for loose, corroded or damaged terminals, or terminals pushed back in the connector.

Q: Is occupant classification-ECU connector D-35-1, weight sensor connector D-35-3, D-35-4, D-35-5 or D-35-6 in good condition?

YES : Go to Step 4.
NO : Repair or replace the component(s) (Refer to GROUP 00E, Harness Connector Inspection P.00E-2).

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STEP 4. Check the wiring harness between occupant classification-ECU connector D-35-1 (terminal 1) and weight sensors D-35-3, D-35-4, D-35-5, and D-35-6 (terminal 2).

Q: Is the wiring harness between occupant classification-ECU connector D-35-1 (terminal 1) and weight sensor D-35-3, D-35-4, D-35-5, D-35-6 (terminal 2) in good condition?

YES : Go to Step 5.

NO : The wiring harness may be damaged or the connector(s) may have loose, corroded or damaged terminals, or terminals pushed back in the connector. Repair the wiring harness as necessary.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set to the occupant classification-ECU.

(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

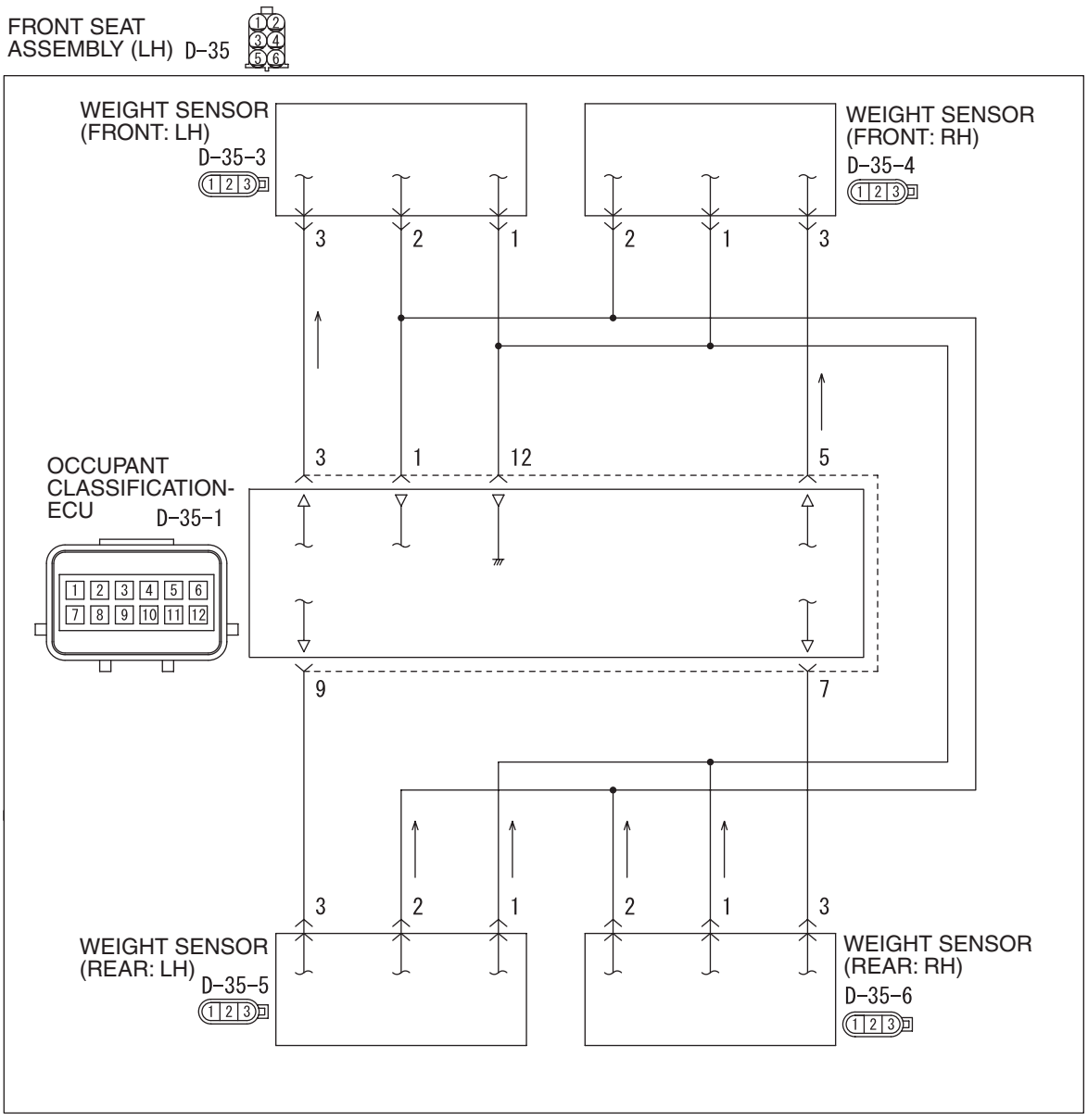
Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1B79: Passenger Seat Weight Sensor (ground side) Short-circuited (front: LH)
DTC B1B7E: Passenger Seat Weight Sensor (ground side) Short-circuited (front: RH)
DTC B1B83: Passenger Seat Weight Sensor (ground side) Short-circuited (rear: LH)
DTC B1B88: Passenger Seat Weight Sensor (ground side) Short-circuited (rear: RH)

Weight Sensor



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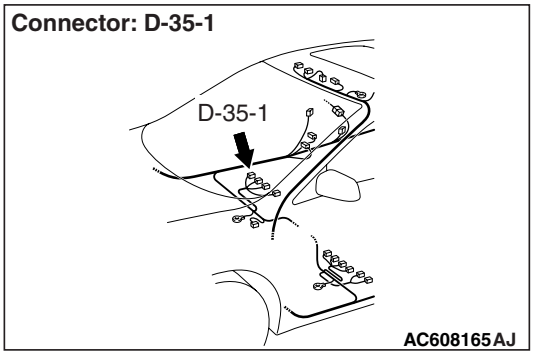


⚠ CAUTION
If DTC B1B79, B1B7E, B1B83 or B1B88 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION

The load data from the weight sensor is classified with the occupant classification-ECU, and its classified information is send to SRS-ECU by CAN bus line. The SRS-ECU determines the air bag deployment based on this classified information, and controls the power supply circuit to the inflator.

DTC SET CONDITIONS

This DTC is set if the weight sensor wire is short-circuited to ground.

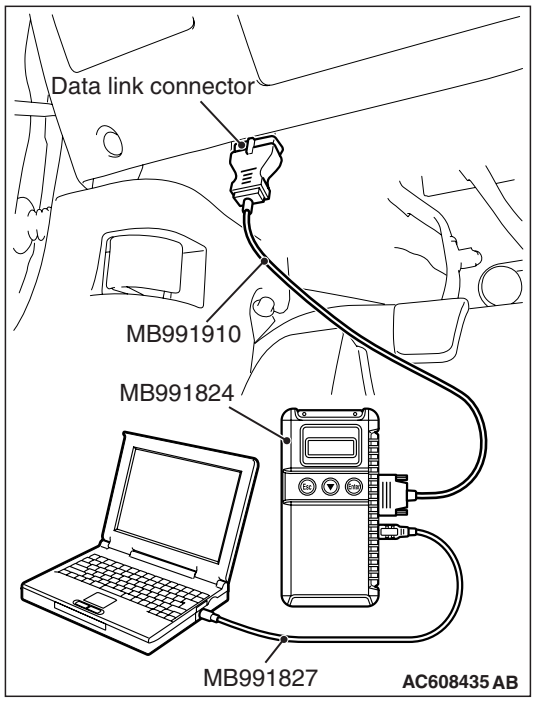
TROUBLESHOOTING HINTS

- Disengaged wire harnesses or connector
- Short to the ground in the weight sensor harness
- Malfunction of the weight sensor
- Malfunction of the occupant classification-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN Communication System)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

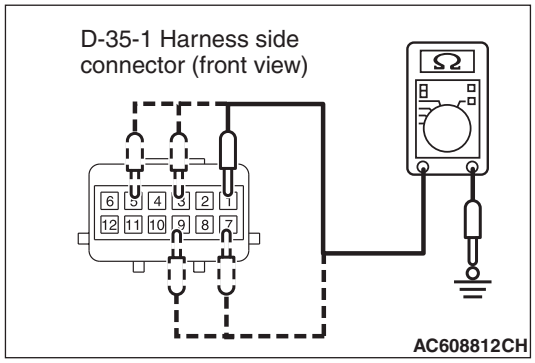
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).



STEP 3. Measure the resistance at occupant classification-ECU connector D-35-1.

(1) Disconnect the connector D-35-1.
(2) Check for continuity between D-35-1 harness side connector terminals 1, 3, 5, 7, 9 and body ground. It should be 2 ohms or less.

Q: Is the measured resistance 2 ohms or less?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B79, B1B7E, B1B83, B1B88 sets. Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).

NO : Repair the wiring harness between occupant classification-ECU connector D-35-1 terminals 1, 3, 5, 7, 9 and the body ground. Then go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

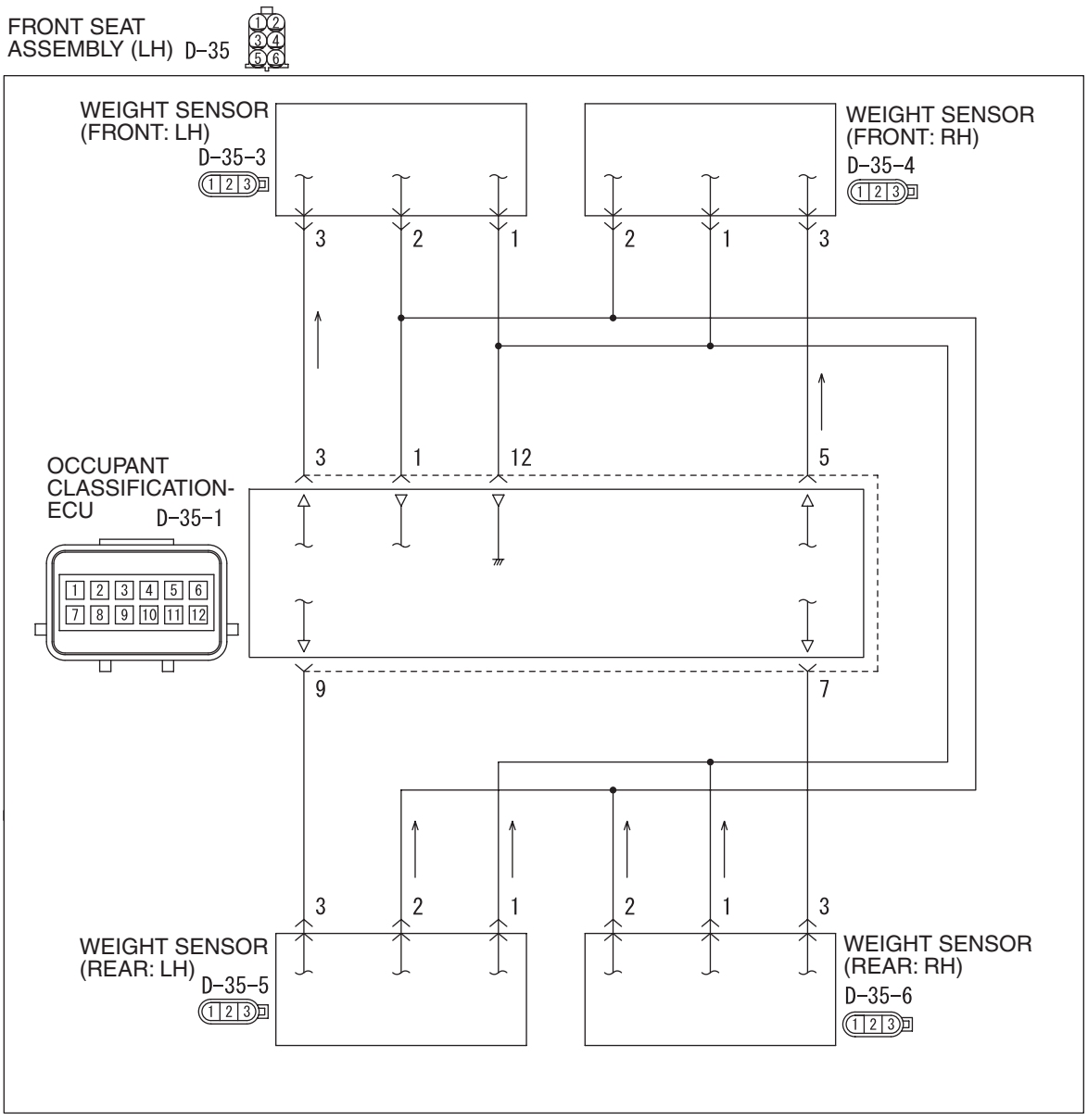
Q: Is DTCs B1B79, B1B7E, B1B83, B1B88 set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1B7A: Passenger Seat Weight Sensor (power supply side) Short-circuited (front: LH)
DTC B1B7F: Passenger Seat Weight Sensor (power supply side) Short-circuited (front: RH)
DTC B1B84: Passenger Seat Weight Sensor (power supply side) Short-circuited (rear: LH)
DTC B1B89: Passenger Seat Weight Sensor (power supply side) Short-circuited (rear: RH)

Weight Sensor



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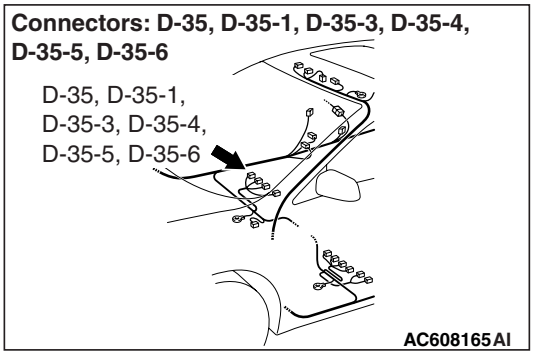


⚠ CAUTION
If DTC B1B7A, B1B7F, B1B84 or B1B89 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION

The load data from the weight sensor is classified with the occupant classification-ECU, and its classified information is send to SRS-ECU by CAN bus line. The SRS-ECU determines the air bag deployment based on this classified information, and controls the power supply circuit to the inflator.

DTC SET CONDITIONS

- This DTC is set if the weight sensor wires are short-circuited to the power supply.
- This DTC is set if the weight sensor wire are open circuit

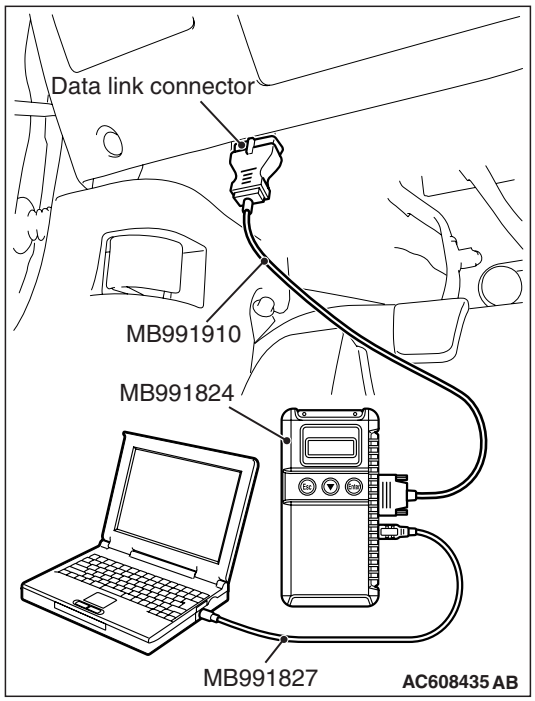
TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to the power supply in the weight sensor harness
- Open circuit in the weight sensor harness
- Malfunction of the weight sensor
- Malfunction of the occupant classification-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

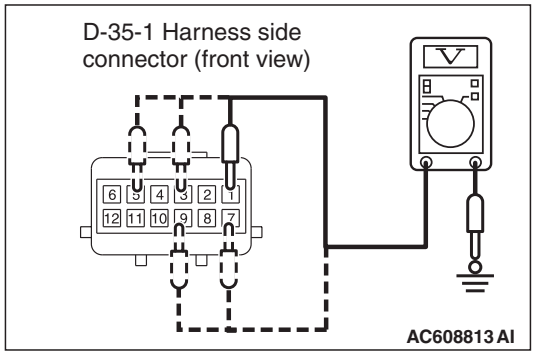
YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTCs set?

YES : Go to Step 3 .
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).



STEP 3. Measure the voltage at occupant classification-ECU connector D-35-1.

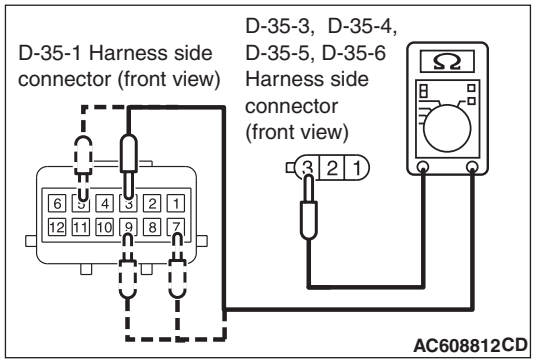
(1) Disconnect the connector D-35-1.
(2) Turn the ignition switch to the "ON" position.
(3) Measure the voltage between terminals 1, 3, 5, 7, 9 and body ground.
Voltage should measure 0 volts.

Q: Is the measured voltage with in the specified range?

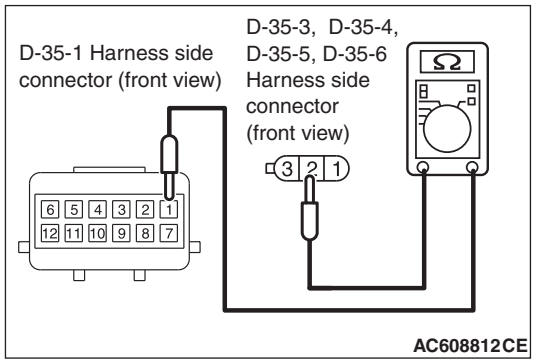
YES : Go to Step 4.

NO : Repair the wiring harness between the occupant classification-ECU connector D-35-1 terminals 1, 3, 5, 7, 9 and the body ground. Then go to Step 5.

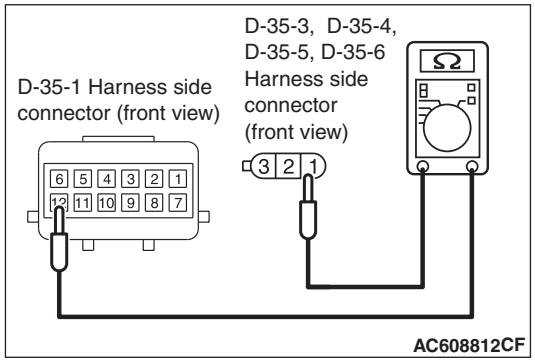
STEP 4. Check the harness open circuit between occupant classification-ECU connector D-35-1 and weight sensor connector D-35-3, D-35-4, D-35-5 or D-35-6.



(1) Disconnect occupant classification-ECU connector D-35-1 and weight sensor connector D-35-3, D-35-4, D-35-5 or D-35-6.
(2) Check for continuity between the following terminals. It should be less than 2 ohms.
- Occupant classification-ECU connector D-35-1 (terminal No.3) and the weight sensor connector D-35-3 (terminal No.3)
- Occupant classification-ECU connector D-35-1 (terminal No.5) and the weight sensor connector D-35-4 (terminal No.3)
- Occupant classification-ECU connector D-35-1 (terminal No.7) and the weight sensor connector D-35-6 (terminal No.3)
- Occupant classification-ECU connector D-35-1 (terminal No.9) and the weight sensor connector D-35-5 (terminal No.3)



- Occupant classification-ECU connector D-35-1 (terminal No.1) and the weight sensor connector D-35-3, D-35-4, D-35-5 and D-35-6 (terminal No.2)



- Occupant classification-ECU connector D-35-1 (terminal No.12) and weight sensor connector D-35-3, D-35-4, D-35-5 and D-35-6 (terminal No.1)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B7A, B1B7F, B1B84 or B1B89 set, replace the occupant classification-ECU.

NO : Replace the harness wires between occupant classification-ECU connector D-35-1 and weight sensor connector D-35-3, D-35-4, D-35-5 and D-35-6. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

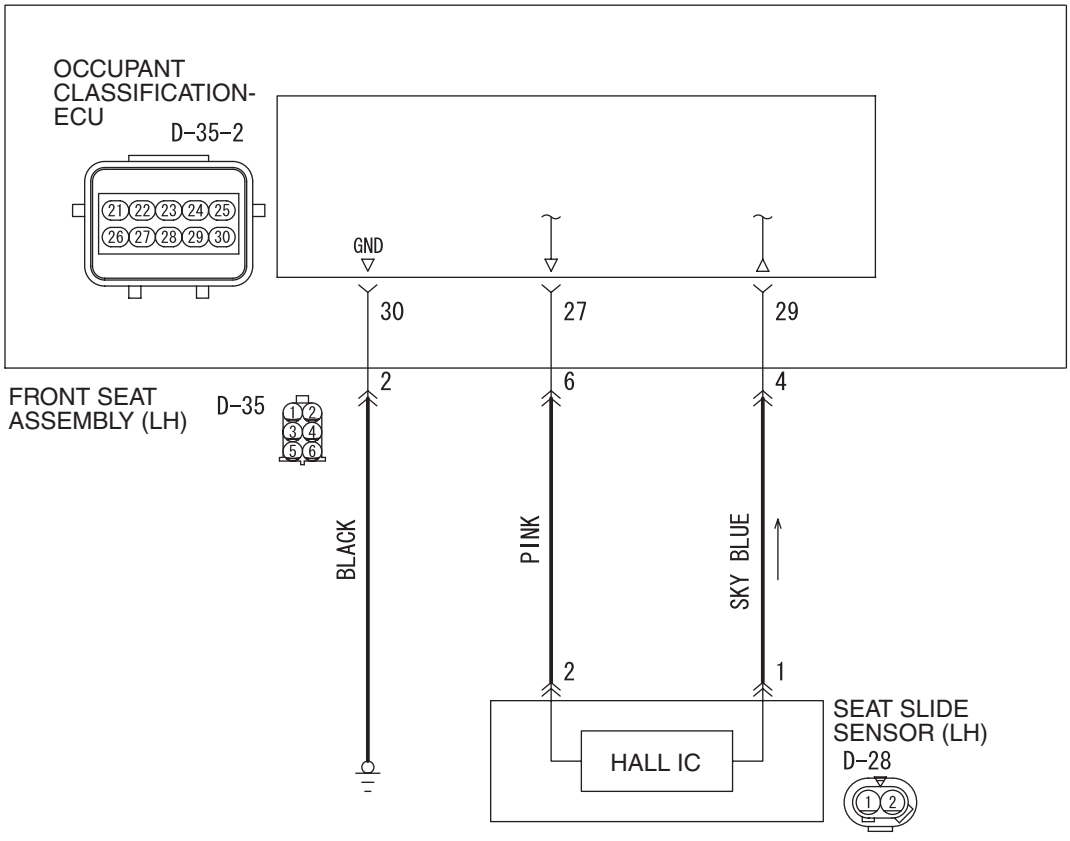
Q: Is DTCs B1B7A, B1B7F, B1B84, B1B89 set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1B8C: Seat Slide Sensor Circuit Performance

Seat Slide Sensor Circuit



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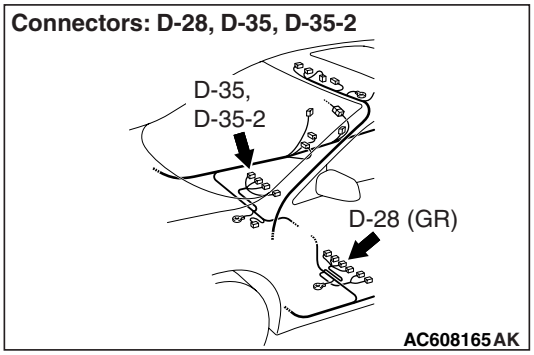


⚠ CAUTION
If DTC B1B8C is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION

- The seat slide sensor sets the current value Hi or Low determined by the seat position.
- The occupant classification-ECU determines the seat position according to the current value from the seat slide sensor.

DTC SET CONDITION

The DTC is set when the seat slide sensor output current is not within the specified range.

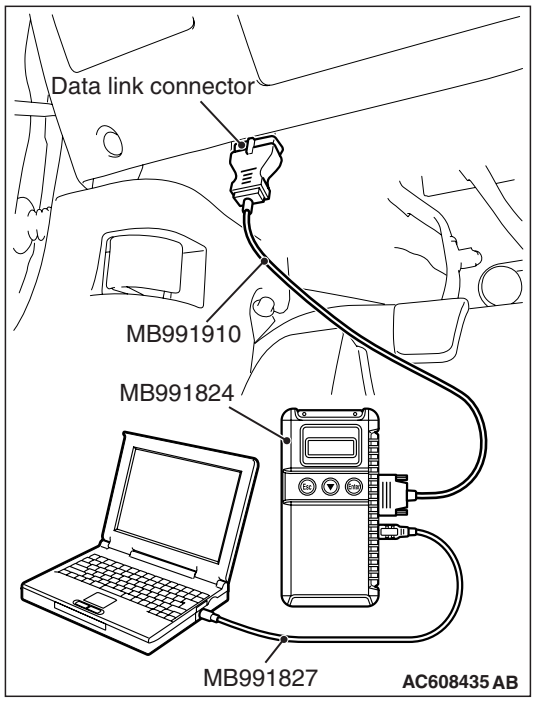
TROUBLESHOOTING HINTS

- The seat slide sensor may be defective.
- The occupant classification-ECU may be defective.
- The wiring harness or connectors may have loose, corroded, or damaged terminals, or terminals pushed back in the connector

DIAGNOSIS

Required Special Tools:

- MB991958 Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827 M.U.T.-III USB Cable
  - MB991910 M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check the occupant classification-ECU connector D-35-2, front seat assembly D-35 and seat slide sensor D-28 for loose, corroded or damaged terminals, or terminals pushed back in the connector.

Q: Is the occupant classification-ECU connector D-35-2, front seat assembly D-35 and seat slide sensor D-28 in good condition?

YES : Go to Step 4.
NO : Repair or replace the component(s) (Refer to GROUP 00E, Harness Connector Inspection P.00E-2).

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STEP 4. Check the wiring harness between the occupant classification-ECU connector D-35-2 (terminal 27 and 29) and the seat slide sensor D-28 (terminal 2 and 1).

Q: Check for continuity between occupant classification-ECU connector D-35-2 (terminal 27 and 29) and the seat slide sensor D-28 (terminal 2 and 1)?

YES : Go to Step 5.

NO : The wiring harness may be damaged or the connector(s) may have loose, corroded or damaged terminals, or terminals pushed back in the connector. Repair the wiring harness as necessary.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set to the occupant classification-ECU.

(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

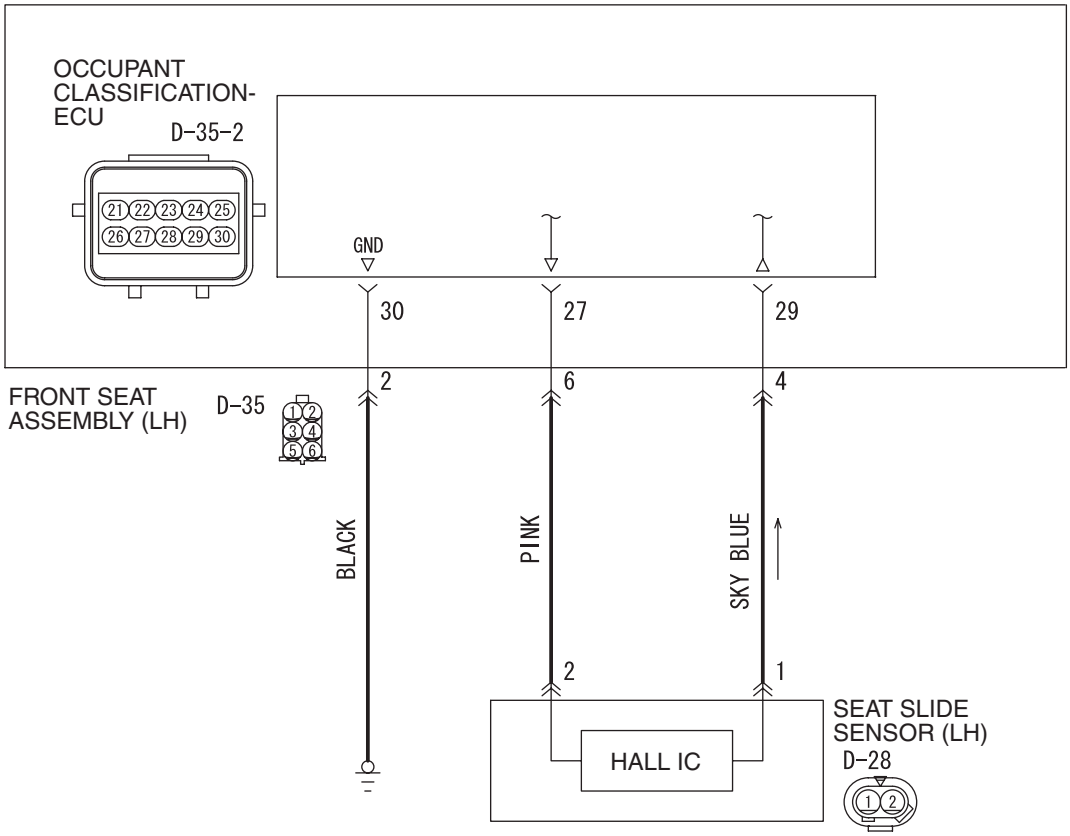
Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).

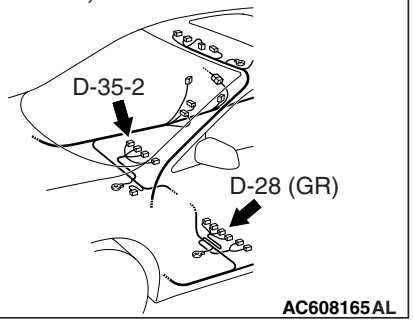
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1B8D: Seat Slide Sensor Open Circuit

Seat Slide Sensor Circuit



Connectors: D-28, D-35-2



⚠ CAUTION

If DTC B1B8D is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION

- The seat slide sensor sets the current value Hi or Low determined by the seat position.
- The occupant classification-ECU determines the seat position according to the current value from the seat slide sensor.

DTC SET CONDITIONS

- This DTC is set if there is abnormal resistance between the input terminals of the seat slide sensor. The most likely causes for this code to be set are the followings:
  - Open circuit in the seat slide sensor or harness
  - Malfunction of connector contact

TROUBLESHOOTING HINTS

- Open circuit in the seat slide sensor circuit

TSB Revision

- Disengaged seat slide sensor connector
- Improper connector contact
- Malfunction of the seat slide sensor
- Malfunction of the occupant classification-ECU

DIAGNOSIS

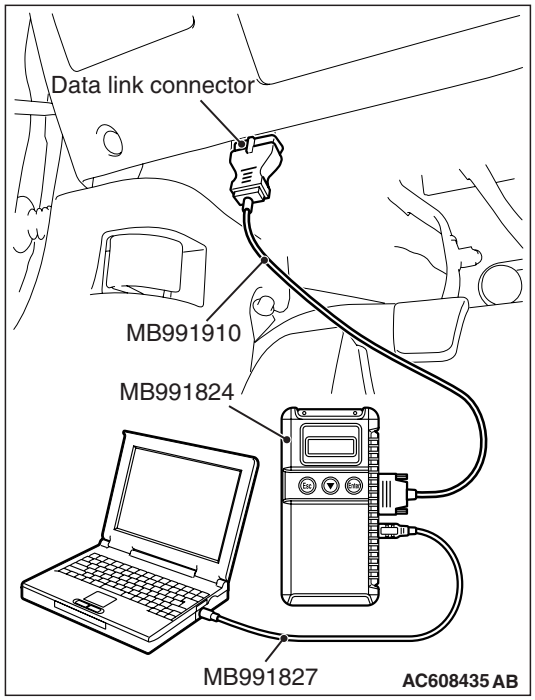
Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.



(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

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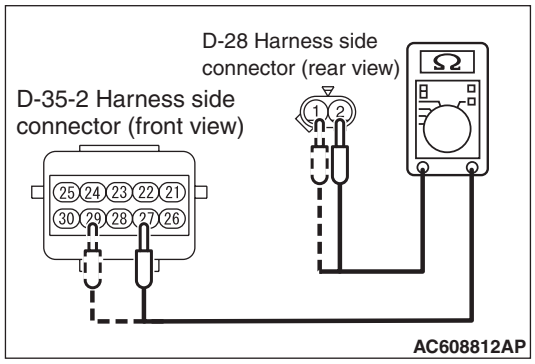


STEP 3. Check the harness for open circuit between occupant classification-ECU connector D-35-2 (terminal No.27 and 29) and the seat slide sensor connector D-28 (terminal No.2 and 1).

(1) Disconnect occupant classification-ECU connector D-35-2 and seat slide sensor connector D-28.

⚠ CAUTION

Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(2) Check for continuity between the following terminals. It should be less than 2 ohms.

- Occupant classification-ECU connector D-35-2 (terminal No.27) and the seat slide sensor connector D-28 (terminal No.2)
- Occupant classification-ECU connector D-35-2 (terminal No.29) and the seat slide sensor connector D-28 (terminal No.1)

Q: Does continuity exist?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B8D sets, replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).

NO : Replace the harness wires between occupant classification-ECU connector D-35-2 and seat slide sensor connector D-28. Then go to Step 4.

STEP 4. Recheck for diagnostic trouble code.

Check again if the DTC is set to the occupant classification-ECU.

(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

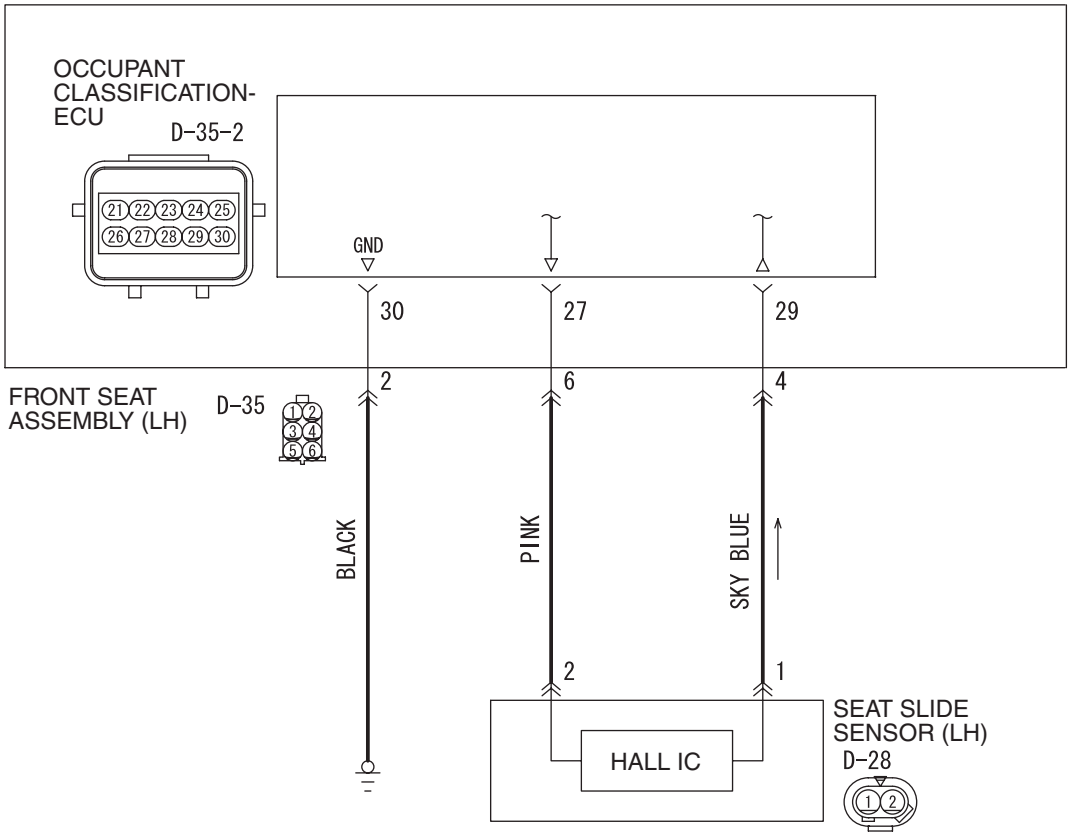
Q: Is the DTC B1B8Dset?

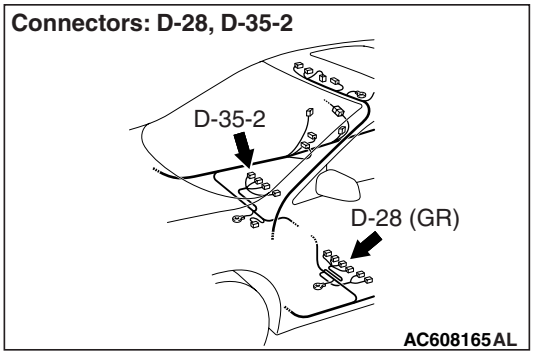
YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front seat assembly P.52A-21).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1B8E: Seat Slide Sensor Short Circuit

Seat Slide Sensor Circuit





⚠ CAUTION

If DTC B1B8E is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION

- The seat slide sensor sets the current value Hi or Low determined by the seat position.
- The occupant classification determines the seat position according to the current value from the seat slide sensor.

DTC SET CONDITIONS

This DTC is set if there is abnormal resistance between the input terminals of the seat slide sensor.

TROUBLESHOOTING HINTS

- Damaged wiring harnesses or connectors
- Short to the power supply in the seat slide sensor harness
- Malfunction of the seat slide sensor
- Malfunction of the occupant classification-ECU

TSB Revision

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

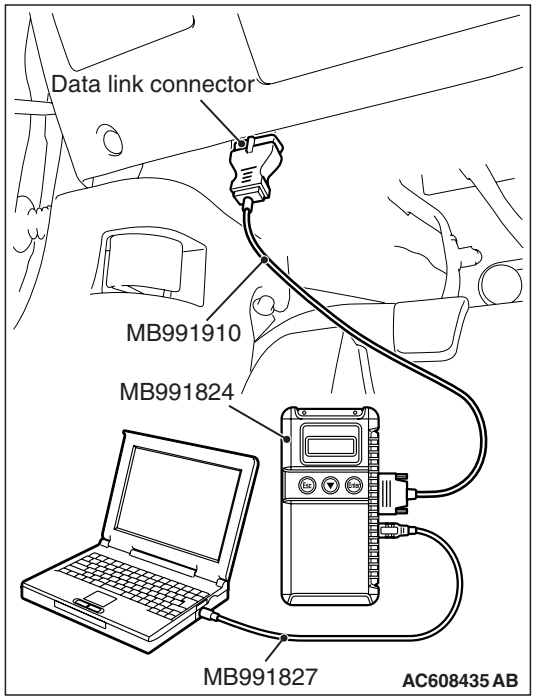
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

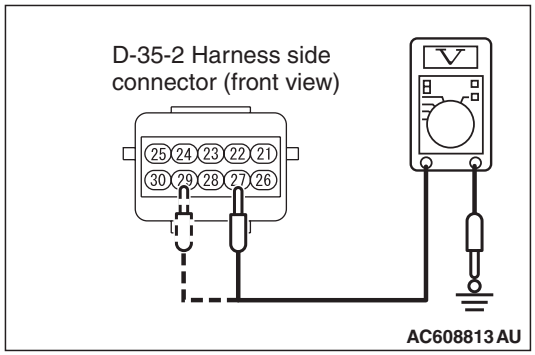
YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Check the seat slide sensor circuit. Measure the voltage at the occupant classification-ECU connector D-35-2.

(1) Disconnect occupant classification connector-ECU connector D-35-2.
(2) Disconnect seat slide sensor connector D-28.
(3) Turn the ignition switch to the "ON" position.

⚠ CAUTION
Do not insert a test probe into the terminal from its front side directly, as the connector contact pressure may be weakened.

(4) Measure the voltage between D-35-2 harness side connector terminals 27, 29 and body ground.
Voltage should measure 0 volt.



Q: Is the measured voltage within the specified range?

YES : Erase the diagnostic trouble code memory, and check the diagnostic trouble code. If DTC B1B8E sets, replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
NO : Go to Step 4.

STEP 4. Check the harness wires for short circuit to power supply between the occupant classification-ECU connector D-35-2 (terminal No.27 and 29) and seat slide sensor connector D-28 (terminal No.2 and 1).

Q: Are the harness wires between occupant classification-ECU connector D-35-2 (terminal No.27 and 29) and seat slide sensor connector D-28 (terminal No.2 and 1) in good condition?

YES : Go to Step 5.
NO : Replace the harness wires between the occupant classification-ECU connector D-35-2 and seat slide sensor connector D-28. Then go to Step 5.

STEP 5. Recheck for diagnostic trouble code.

Check again if the DTC is set to the occupant classification-ECU.

(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1B8E set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front seat assembly P.52A-21).
NO : The procedure is complete.

TSB Revision

DTC B1B91: Driver Seat Slide Sensor Configuration Mismatch

⚠ CAUTION
If DTC B1B91 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

DTC SET CONDITIONS

These DTCs are set if there is an error in the coding data of the occupant classification-ECU.

TROUBLESHOOTING HINTS

Malfunction of occupant classification-ECU

DIAGNOSIS

Required Special Tools:

- MB991958 Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827 M.U.T.-III USB Cable
  - MB991910 M.U.T.-III Main Harness A (Vehicles with CAN communication system)

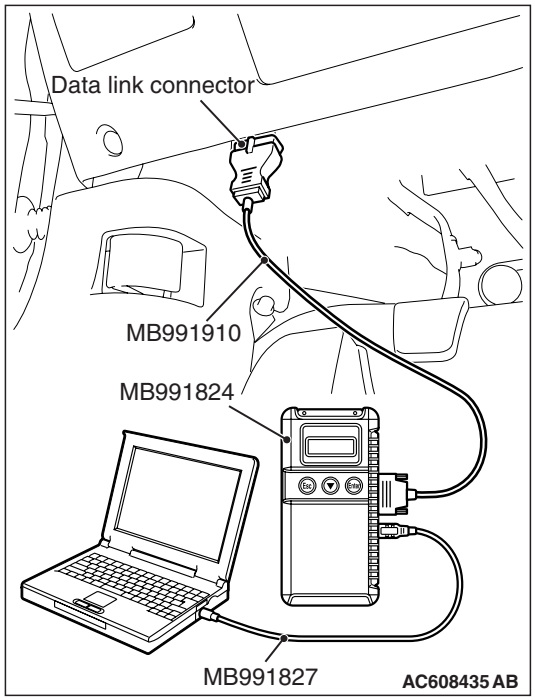
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1BA7: Occupant Classification System Verification Required

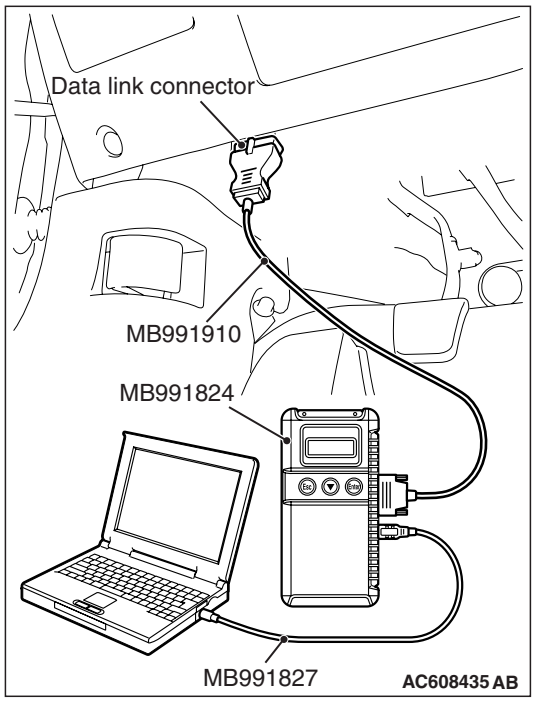
⚠ CAUTION
If DTC B1BA7 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION
The load data from the weight sensor is classified with the occupant classification-ECU, and its classified information is send to SRS-ECU by CAN bus line. The SRS-ECU determines the air bag deployment based on this classified information, and controls the power supply circuit to the inflator.

DTC SET CONDITIONS
This DTC is set if a light impact is detected by the occupant classification-ECU.

TROUBLESHOOTING HINTS
- Malfunction of weight sensor
- Malfunction of occupant classification-ECU

DIAGNOSIS
Required Special Tools:
- MB991958 Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827 M.U.T.-III USB Cable
  - MB991910 M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1BA7 set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1BA8: Occupant classification-ECU Out of Calibration not/Calibrated

⚠ CAUTION
If DTC B1BA8 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION

The load data from the weight sensor is classified with the occupant classification-ECU, and its classified information is send to SRS-ECU by CAN bus line. The SRS-ECU determines the air bag deployment based on this classified information, and controls the power supply circuit to the inflator.

DTC SET CONDITION

This DTC is set when the 30 Kg (66 pounds) system and 0 Kg (0 pound) system have not been executed.

TROUBLESHOOTING HINTS

- Zero calibration not executed
- 30 Kg (66 pounds) system and 0 Kg (0 pound) system not executed

DIAGNOSIS

Required Special Tools:

- MB991958 Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827 M.U.T.-III USB Cable
  - MB991910 M.U.T.-III Main Harness A (Vehicles with CAN communication system)

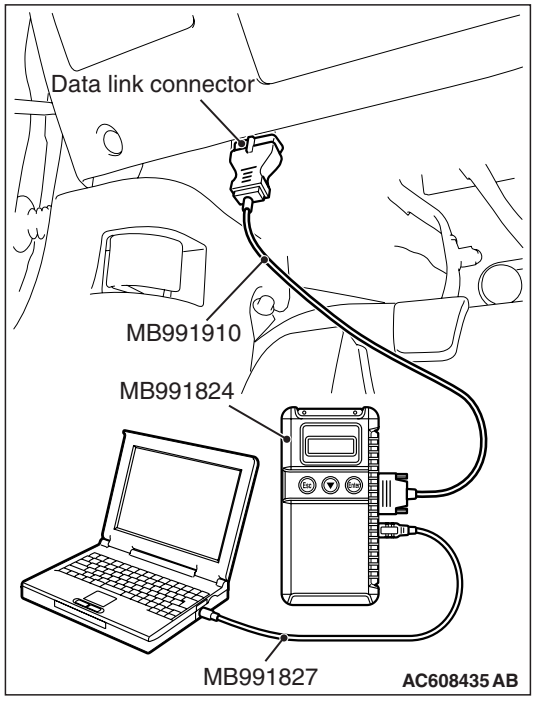
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



TSB Revision

STEP 2. Recheck for diagnostic trouble code.
Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1BA7 set?

YES : After executing zero calibration of the occupant classification-ECU, execute 30 Kg (66 pounds) system and 0 Kg (0 pound) system.

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1BBA: Passenger Seat Weight Sensor Supply Circuit

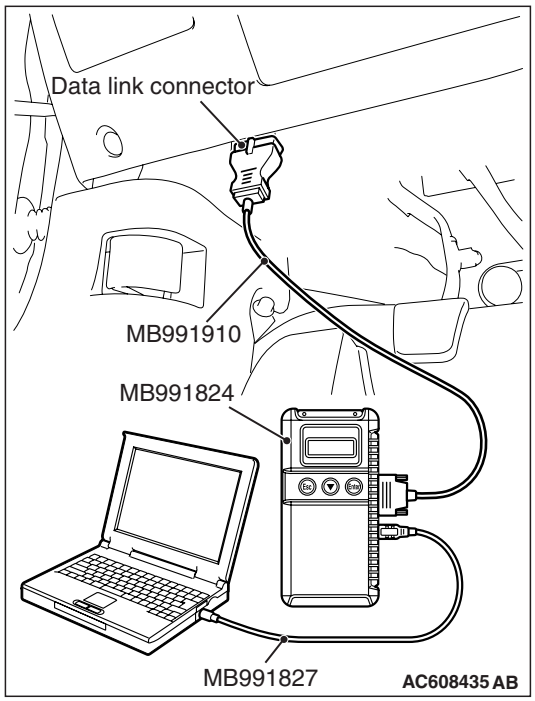
⚠ CAUTION
If DTC B1BBA is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

CIRCUIT OPERATION
The load data from the weight sensor is classified with the occupant classification-ECU, and its classified information is send to SRS-ECU by CAN bus line. The SRS-ECU determines the air bag deployment based on this classified information, and controls the power supply circuit to the inflator.

DTC SET CONDITIONS
This DTC is set if the weight sensor power supply line is defective.

TROUBLESHOOTING HINTS
- The weight sensor may be defective.
- The occupant classification-ECU may be defective.
- The wiring harness or connectors may have loose, corroded, or damaged terminals, or terminals pushed back in the connector

DIAGNOSIS
Required Special Tools:
- MB991958 Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827 M.U.T.-III USB Cable
  - MB991910 M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 3. Using scan tool MB991958,read the occupant classification-ECU diagnostic trouble code.

Check if the DTC is set the occupant classification-ECU.

Q: Is the DTC set?

YES : Diagnose the occupant classification-ECU
NO : Go to Step 4 .

STEP 4. Recheck for diagnostic trouble code.
Check again if the DTC is set to the occupant classification-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1BBC: Occupant Classification System Negative System Weight

⚠ CAUTION
If DTC B1BBC is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

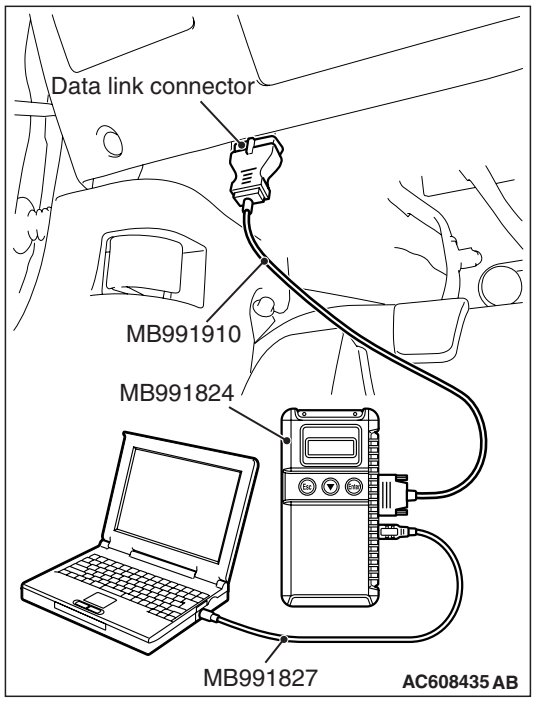
CIRCUIT OPERATION
The load data from the weight sensor is classified with the occupant classification-ECU, and its classified information is send to SRS-ECU by CAN bus line. The SRS-ECU determines the air bag deployment based on this classified information, and controls the power supply circuit to the inflator.

DTC SET CONDITION
This DTC is set if the passenger seat weight is -15 Kg (-35 pound) or less.

TROUBLESHOOTING HINTS
An object is caught in between the passenger seat and floor.

DIAGNOSIS

Required Special Tools:
- MB991958 Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827 M.U.T.-III USB Cable
  - MB991910 M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC B1BA7 set?

YES : Check for an object caught in between the passenger seat and floor.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1BBD: Occupant Classification-ECU Current Configuration table Unprogrammed

⚠ CAUTION
If DTC B1BBD is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

DTC SET CONDITIONS

The DTC is set if the check error occurs in the coding data of the occupant classification-ECU.

TROUBLESHOOTING HINTS

- Zero calibration not executed
- The occupant Classification-ECU may be defective.

DIAGNOSIS

Required Special Tools:

- MB991958 Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827 M.U.T.-III USB Cable
  - MB991910 M.U.T.-III Main Harness A (Vehicles with CAN communication system)

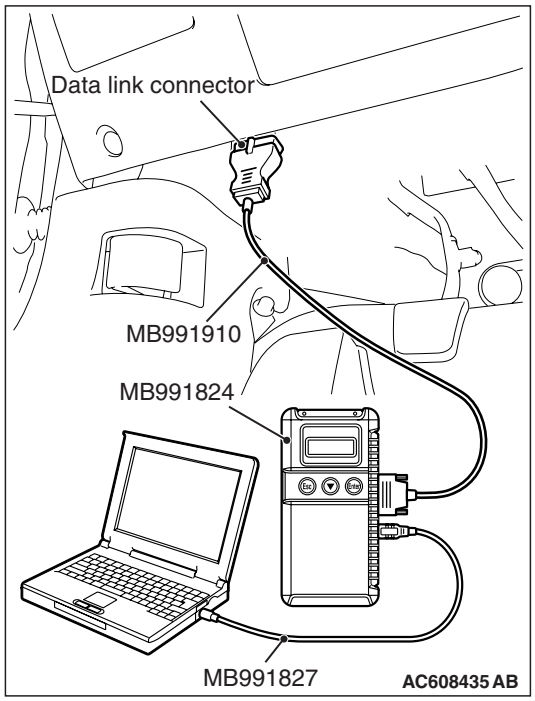
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.
Check again if the DTC is set the occupant classification-ECU.
(1) Zero calibration of occupant classification -ECU
(2) Erase the DTC.
(3) Turn the ignition switch to the "ON" position.
(4) Check if the DTC is set.
(5) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1C23: Passenger Seat Weight Sensor (front: LH) Configuration Mismatch
DTC B1C24: Passenger Seat Weight Sensor (front: RH) Configuration Mismatch
DTC B1C25: Passenger Seat Weight Sensor (rear: LH) Configuration Mismatch
DTC B1C26: Passenger Seat Weight Sensor (rear: RH) Configuration Mismatch

⚠ CAUTION
If DTC B1C23, B1C24 B1C25, B1C26 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

DTC SET CONDITIONS

The DTC is set if the weight sensor serial No. of the coding data in the occupant classification-ECU does not match the serial No. sent from the weight sensor.

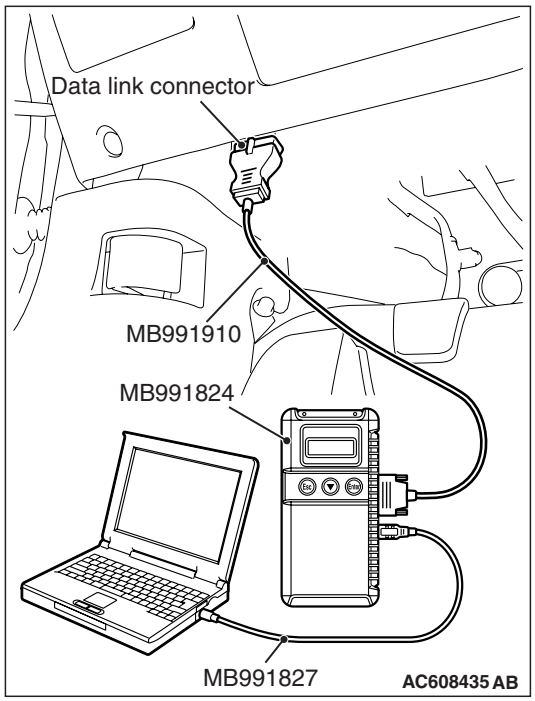
TROUBLESHOOTING HINTS

- Zero calibration not executed
- Occupant Classification -ECU may be defective.

DIAGNOSIS

Required Special Tools:

- MB991958 Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827 M.U.T.-III USB Cable
  - MB991910 M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Zero calibration of occupant classification -ECU
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B1CB2: Occupant Classification-ECU Parameter Table Incompatible
DTC B2212: Occupant Classification-ECU internal
DTC B2250: Occupant Classification-ECU not Parameter Flash Required
DTC B2262: Occupant Classification-ECU Electrostatic Discharge Event Detected

⚠ CAUTION
If DTC B1CB2, B2212, B2250, B2262 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

TROUBLE JUDGEMENT

The above DTC is set if an abnormality is detected in the circuit inside the occupant classification-ECU.

TROUBLESHOOTING HINTS

Malfunction of the occupant classification-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

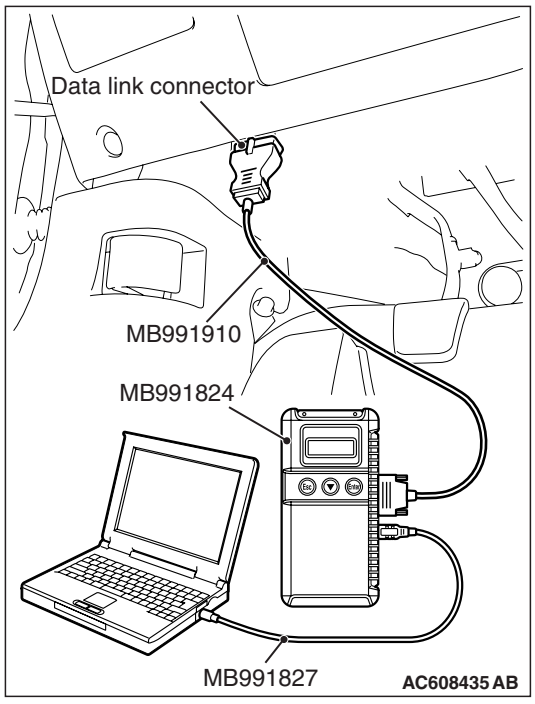
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

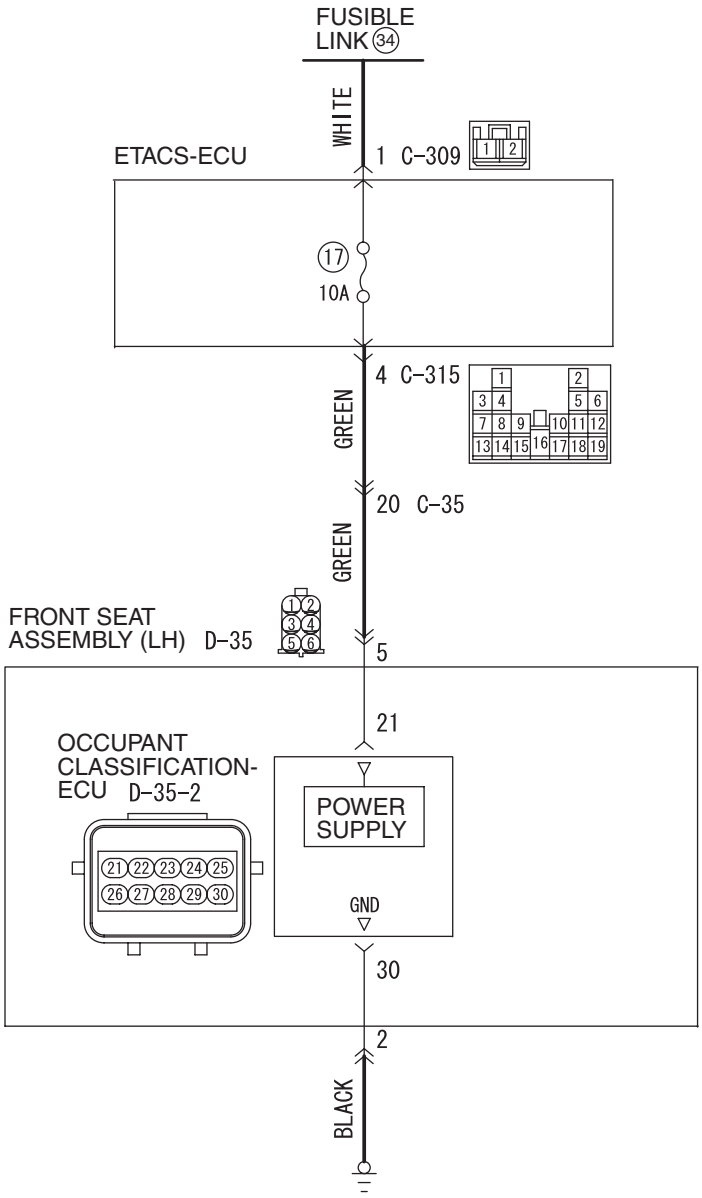
Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).

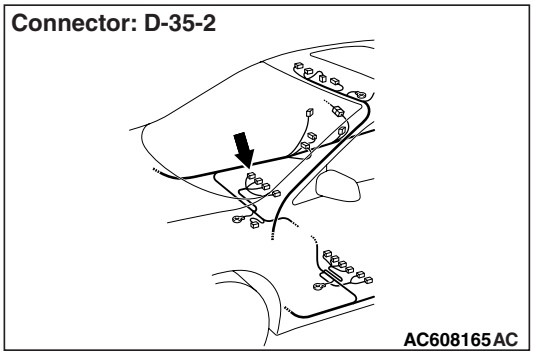
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC B210D: Battery Voltage Low
DTC B210E: Battery Voltage High

Occupant Classification-ECU Power Supply Circuit



Connector: D-35-2



TSB Revision

⚠ CAUTION
If DTC B210D, B210E is set in the occupant classification-ECU, always diagnose the CAN main bus lines.

TROUBLE JUDGEMENT

The occupant classification-ECU sets DTC B210D if the power supply fuse voltage decreases to the specified value or less, and sets DTC B210E if the power supply fuse voltage increases to the specified value or more. However, when the status returns to normal, the occupant classification-ECU automatically erases DTCs B210D and B210E.

TECHNICAL DESCRIPTION (COMMENT)

The power supply fuse or the occupant classification-ECU may have a problem.

TROUBLESHOOTING HINTS

- The power supply fuse may be defective.
- The occupant classification-ECU may be defective.
- The battery may be defective.
- The alternator may be defective.
- The wiring harness or connectors may have loose, corroded, or damaged terminals, or terminals pushed back in the connector

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

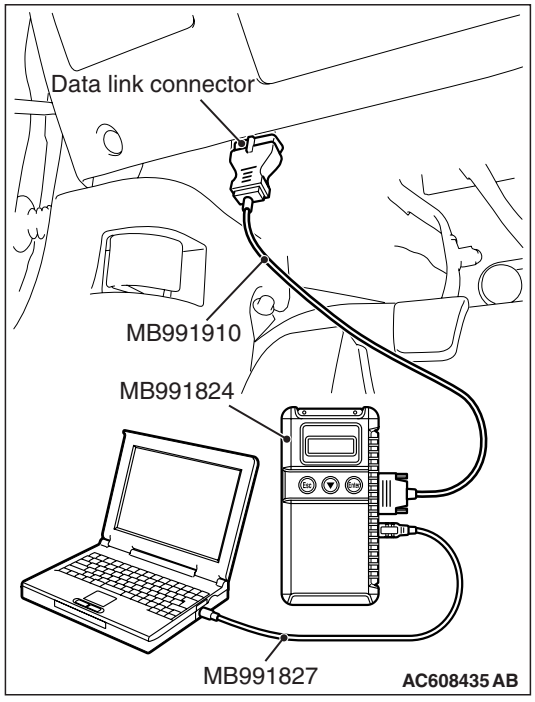
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2 .
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.

Check again if the DTC is set.

(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 3
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-13).

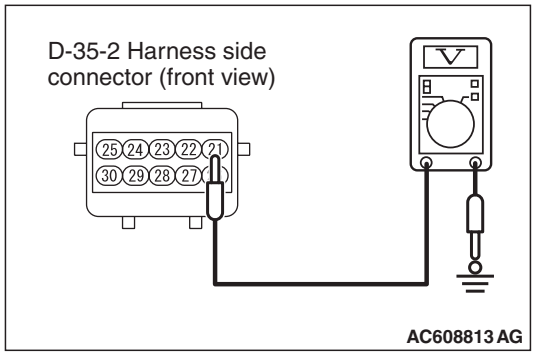
STEP 3. Check the occupant classification-ECU connector D-35-2 for loose, corroded or damaged terminals, or terminals pushed back in the connector.

Q: Is the occupant classification-ECU connector D-35-2 in good condition?

YES : Go to Step 4.
NO : Repair or replace the component(s) (Refer to GROUP 00E, Harness Connector Inspection P.00E-2).

STEP 4. Check the battery power supply circuit to the occupant classification-ECU. Measure the voltage at occupant classification-ECU connector D-35-2.

(1) Disconnect occupant classification-ECU connector D-35-2 and measure the voltage available at the wiring harness side of the connector.
(2) Measure the voltage between terminal 21 and ground.
- The voltage should measure approximately 12 volts (battery positive voltage).



Q: Is the measured voltage approximately 12 volts (battery positive voltage)?

YES : Go to Step 6.
NO : Go to Step 5.

STEP 5. Check the wiring harness between the occupant classification-ECU connector D-35-2 (terminal 21) and the fusible link (17).

Q: Is the wiring harness between occupant classification-ECU connector D-35-2 (terminal 21) and the fusible link (17) in good condition?

YES : No action is necessary and testing is complete.
NO : The wiring harness may be damaged or the connector(s) may have loose, corroded or damaged terminals, or terminals pushed back in the connector. Repair the wiring harness as necessary.

TSB Revision

STEP 6. Using scan tool MB991958, check data list.

Check the power supply fuse voltage.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the Scan Tool (M.U.T.-III) P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Check the occupant classification-ECU data list.
- Turn the ignition switch to the "ACC" position.

Item No.	Item name	Normal condition
Item 10	Battery voltage	Approximately 12 volts (battery positive voltage)

(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Do the scan tool MB991958 display the item "battery voltage" is normal condition?

YES : Go to Step 7.
NO : Replace the front seat cushion frame (Refer to GROUP 52A Front seat assembly P.52A-21).

STEP 7. Recheck for diagnostic trouble code.

Check again if the DTC is set to the occupant classification-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to use Troubleshooting/inspection Service Points P.00-13).

DTC B2206: Chassis number does not match

⚠ CAUTION
If DTC B2206 is set in the occupant classification-ECU, always diagnose the CAN bus line.

TROUBLE JUDGEMENT

If the registered chassis number is different from the chassis number transmitted on the CAN bus lines, the occupant classification-ECU sets the DTC B2206.

JUDGEMENT CRITERIA

If the chassis number registered to occupant classification-ECU and the chassis number on CAN bus lines do not match, the occupant classification-ECU determines that a problem has occurred.

TROUBLESHOOTING HINTS

- Chassis number not written
- The occupant classification-ECU may be defective.
- The CAN bus line may be defective.

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

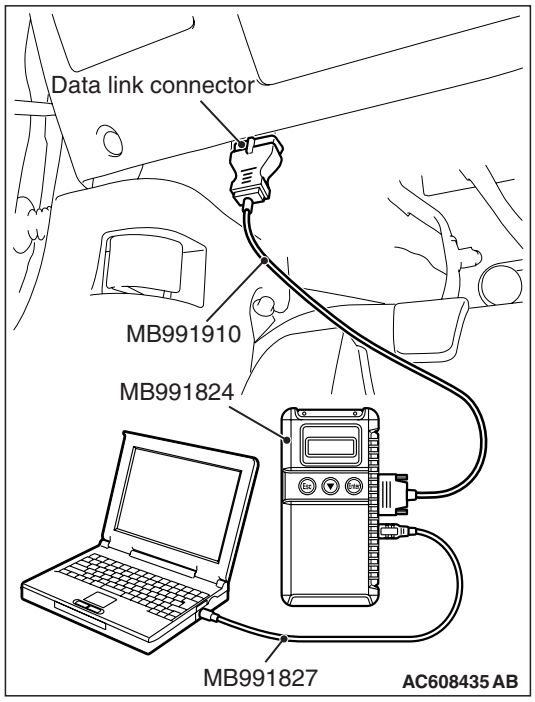
STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the Scan Tool (M.U.T.-III) P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Accuracy check is performed. Then go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Recheck for diagnostic trouble code.
Check again if the DTC is set to the occupant classification-ECU.
(1) Zero calibration of occupant classification-ECU.
(2) Erase the DTC.
(3) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(4) Check if DTC is set.
(5) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).

NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC U0020: CAN-B Bus Off Performance
DTC U0021: CAN-B Bus(+) Circuit Open
DTC U0022: CAN-B Bus(+) Shorted to Circuit Ground
DTC U0023: CAN-B Bus(+) Shorted to Circuit Power Supply
DTC U0024: CAN-B Bus(−) Circuit Open
DTC U0025: CAN-B Bus(−) Shorted to Circuit Ground
DTC U0026: CAN-B Bus(−) Shorted to Circuit Power Supply

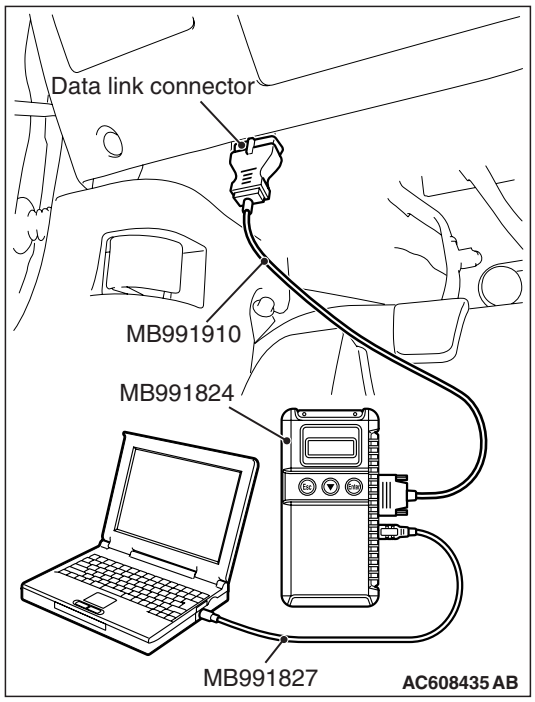
⚠ CAUTION
- **If the DTC U0020, U0021, U0022, U0023, U0024, U0025, U0026 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION
If the CAN-B circuit malfunction, the occupant classification-ECU sets the DTC U0020, U0021, U0022, U0023, U0024, U0025, U0026.

JUDGEMENT CRITERIA
Because of the CAN-B bus circuit malfunction, if occupant classification-ECU becomes unable to perform the normal data transmission, occupant classification-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS
The CAN bus line may be defective

DIAGNOSIS
Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 2. Using scan tool MB991958, diagnose the CAN bus line.

(1) Turn the ignition switch to the "ON" position.
(2) Diagnose the CAN bus line.
(3) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

DTC U0141: ETACS CAN Timeout

⚠ CAUTION

- **If the DTC U0141 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

If the signal from ETACS-ECU cannot be received, the occupant classification-ECU sets the DTC U0141.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if occupant classification-ECU becomes unable to perform the normal data transmission, occupant classification-ECU determines that an abnormality is present.

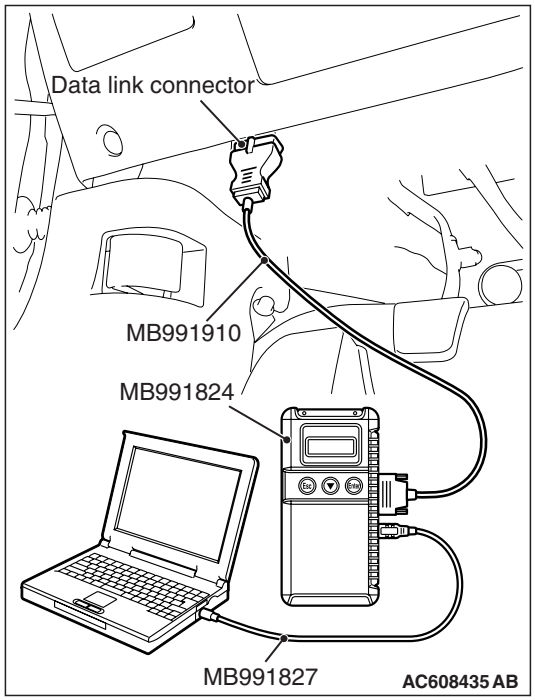
TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The ETACS-ECU may be defective
- The occupant classification-ECU may be defective

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the ETACS-ECU diagnostic trouble code

Check again if the DTC is set to the ETACS-ECU.

Q: Is the DTC set?

YES : Diagnose the ETACS-ECU.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the occupant classification-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC U0151: SRS-ECU CAN timeout

⚠ CAUTION

- **If DTC U0151 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

If the signal from SRS-ECU cannot be received, the occupant classification system sets DTC U0151.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if occupant classification-ECU becomes unable to perform the normal data transmission, occupant classification-ECU determines that an abnormality is present.

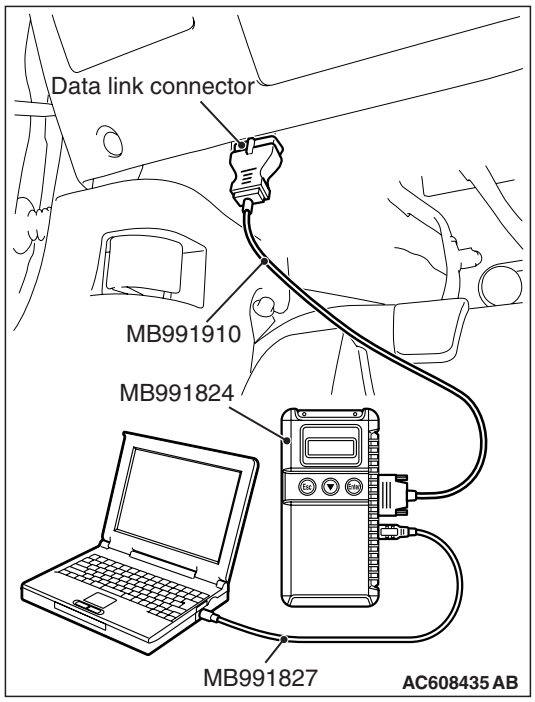
TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The SRS-ECU may be defective
- The occupant classification-ECU may be defective

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the Scan Tool (M.U.T.-III) P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the SRS-ECU diagnostic trouble code.
Check again if the DTC is set to the SRS-ECU.

Q: Is the DTC set?

YES : Diagnose the SRS-ECU.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set to the occupant classification-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC U0155: Combination Meter CAN Timeout

⚠ CAUTION

- **If the DTC U0155 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

TROUBLE JUDGEMENT

If the signal from combination meter cannot be received, the occupant classification-ECU sets the DTC U0155.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if occupant classification-ECU becomes unable to perform the normal data transmission, occupant classification-ECU determines that an abnormality is present.

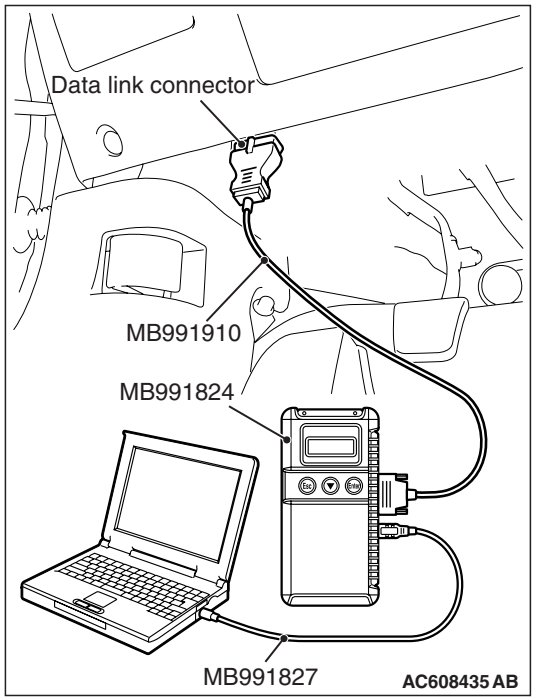
TROUBLESHOOTING HINTS

- The CAN bus line may be defective
- The combination meter may be defective
- The occupant classification-ECU may be defective

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the combination meter diagnostic trouble code
Check if DTC is set to the combination meter.

Q: Is the DTC set?

YES : Diagnose the combination meter.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set to the occupant classification-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC U0164: A/C-ECU CAN Timeout

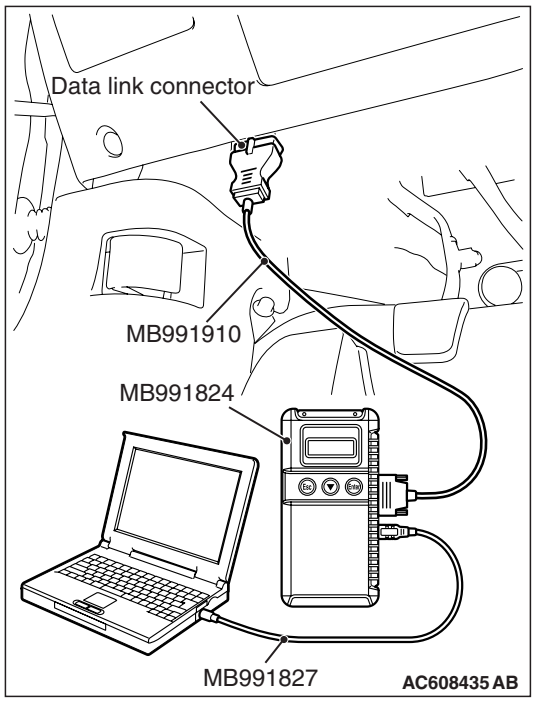
⚠ CAUTION
- **If the DTC U0164 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION
If the signal from A/C-ECU cannot be received, the occupant classification-ECU sets the DTC U0164.

JUDGEMENT CRITERIA
Because of the CAN-B bus circuit malfunction, if the occupant classification-ECU becomes unable to perform the normal data transmission, the occupant classification-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS
- The CAN bus line may be defective
- The A/C-ECU may be defective
- The occupant classification-ECU may be defective

DIAGNOSIS
Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the Scan Tool (M.U.T.-III) P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the A/C diagnostic trouble code.
Check if DTC is set to the A/C-ECU.

Q: Is the DTC set?

YES : Diagnose the A/C.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set to the occupant classification-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC U0168: KOS-ECU or WCM CAN Timeout

⚠ CAUTION

- **If DTC U0168 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

If the signal from KOS-ECU or WCM cannot be received, the occupant classification-ECU sets the DTC U0168.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if the occupant classification-ECU becomes unable to perform the normal data transmission, the occupant classification-ECU determines that an abnormality is present.

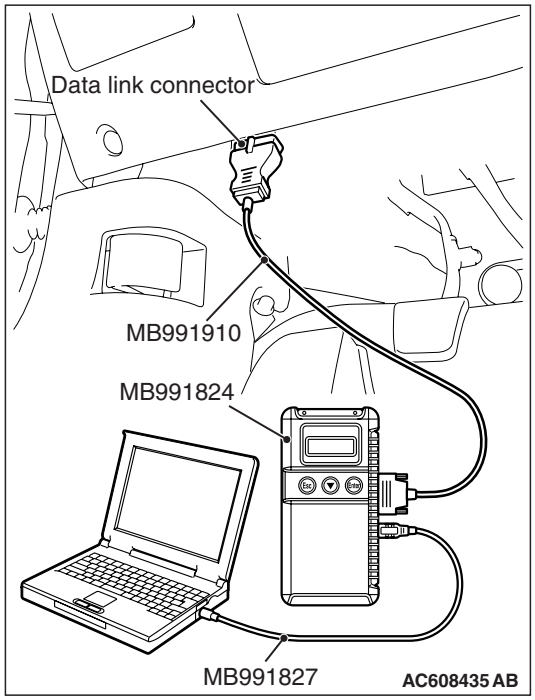
TROUBLESHOOTING HINTS

- Malfunction of CAN bus line may be defective.
- Malfunction of the KOS-ECU may be defective.
- Malfunction of the WCM may be defective.
- Malfunction of the occupant classification-ECU may be defective.

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the Scan Tool (M.U.T.-III) P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the KOS-ECU or WCM diagnostic trouble code.
Check again if the DTC is set to the KOS-ECU or WCM.

Q: Is the DTC set?

YES : Diagnose the KOS or WCM.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set to the occupant classification-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC U0184: Audio CAN Timeout

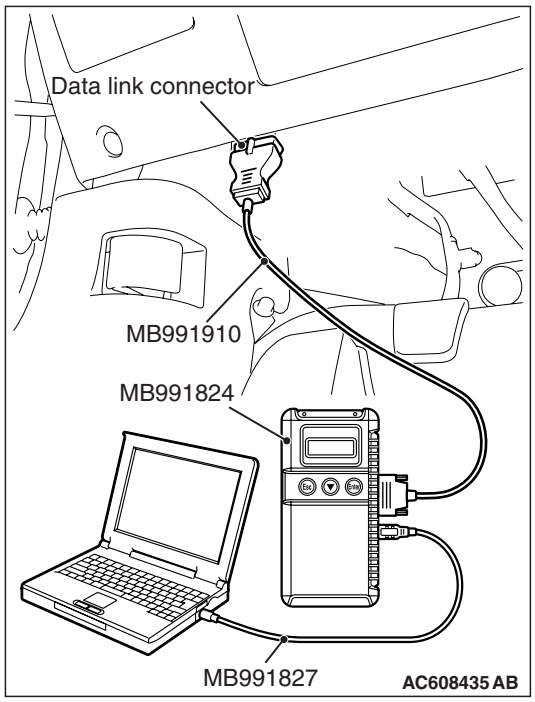
⚠ CAUTION
- **If the DTC U0184 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION
When the signals from radio and CD player or CD changer cannot be received, the occupant classification-ECU sets the DTC U0184.

JUDGEMENT CRITERIA
Because of the CAN-B bus circuit malfunction, if occupant classification-ECU becomes unable to perform the normal data transmission, occupant classification-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS
- The CAN bus line may be defective
- The radio and CD player or CD changer may be defective
- The occupant classification-ECU may be defective

DIAGNOSIS
Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the audio diagnostic trouble code.

Check if the DTC is set to the audio.

Q: Is the DTC set?

YES : Diagnose the radio and CD player.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.

Check again if the DTC is set to the occupant classification-ECU.

(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC U0195: Satellite Radio Tuner CAN Timeout

⚠ CAUTION

- **If the DTC U0195 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

TROUBLE JUDGEMENT

If the signal from satellite radio tuner cannot be received, the occupant classification-ECU sets the DTC U0195.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if occupant classification-ECU becomes unable to perform the normal data transmission, occupant classification-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS

- The CAN bus may be defective.
- The satellite radio tuner may be defective.
- The occupant classification-ECU may be defective.

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

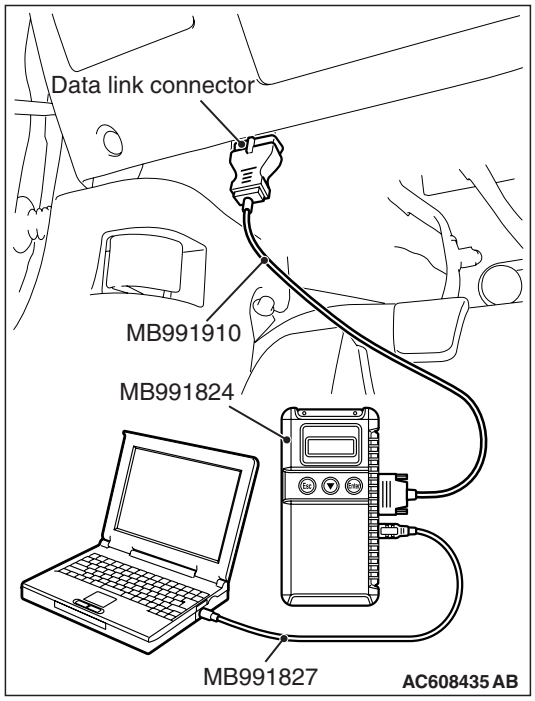
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Using scan tool MB991958, read the satellite radio tuner diagnostic trouble code.
Check if DTC is set to the satellite radio tuner.

Q: Is the DTC set?

YES : Diagnose the satellite radio.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set to the occupant classification-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC U0197: Hands Free Module CAN Timeout

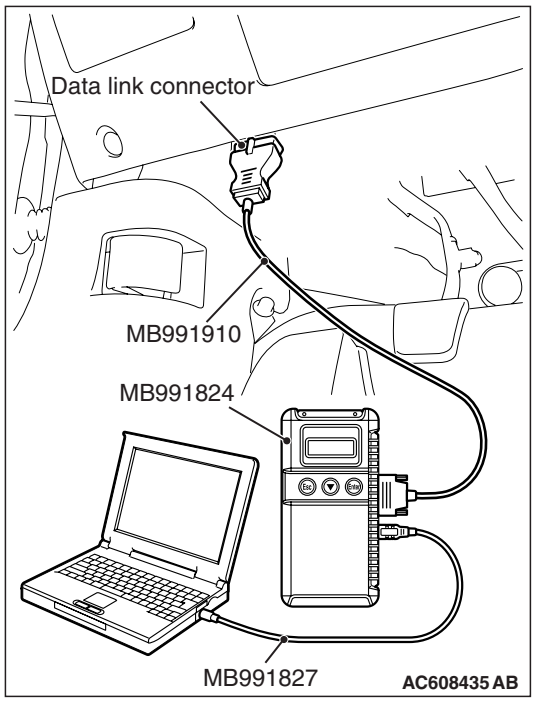
⚠ CAUTION
- **If the DTC U0197 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION
When the signals from hands free module cannot be received, the occupant classification-ECU sets the DTC U0197.

JUDGEMENT CRITERIA
Because of the CAN-B bus circuit malfunction, if occupant classification-ECU becomes unable to perform the normal data transmission, occupant classification-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS
- The CAN bus line may be defective.
- The hands free module may be defective.
- The occupant classification-ECU may be defective.

DIAGNOSIS
Required Special Tools:
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the scan tool P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C Diagnosis P.54C-16).

STEP 2. Using scan tool MB991958, read the hands free module diagnostic trouble code.
Check if the DTC is set to the hands free module.

Q: Is the DTC set?

YES : Diagnose the hands-free cellular phone system.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set to the occupant classification-ECU.

(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC U0245: Audio Visual Navigation Unit CAN timeout

⚠ CAUTION

- **If DTC U0245 is set in the occupant classification-ECU, always diagnose the CAN main bus lines.**
- **When replacing the ECU, always check that the communication circuit is normal.**

DIAGNOSTIC FUNCTION

When the signals from audio visual navigation unit cannot be received, the occupant classification system sets DTC U0245.

JUDGEMENT CRITERIA

Because of the CAN-B bus circuit malfunction, if audio visual navigation becomes unable to perform the normal data transmission, occupant classification-ECU determines that an abnormality is present.

TROUBLESHOOTING HINTS

- The CAN bus line may be defective.
- The occupant classification-ECU may be defective.
- The audio visual navigation unit may be defective.

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicles Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

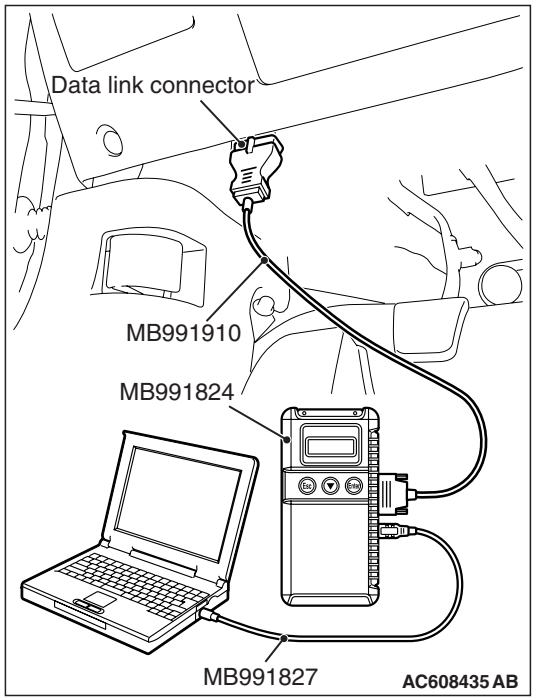
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

(1) Connect scan tool MB991958. Refer to "How to connect the Scan Tool (M.U.T.-III) P.52B-28."
(2) Turn the ignition switch to the "ON" position.
(3) Diagnose the CAN bus line.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the CAN bus line found to be normal?

YES : Go to Step 2.
NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



STEP 2. Using scan tool MB991958, read the audio visual navigation unit diagnostic trouble code.
Check if DTC is set to the audio visual navigation unit.

Q: Is the DTC set?

YES : Diagnose the MMCS.
NO : Go to Step 3.

STEP 3. Recheck for diagnostic trouble code.
Check again if the DTC is set to the occupant classification-ECU.
(1) Erase the DTC.
(2) Turn the ignition switch from "LOCK" (OFF) position to "ON" position.
(3) Check if DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

DTC U1419: The signal from a weight sensor (front: LH) is unusual
DTC U141A: The signal from a weight sensor (front: RH) is unusual
DTC U141B: The signal from a weight sensor (rear: LH) is unusual
DTC U141C: The signal from a weight sensor (rear: RH) is unusual
DTC U1423: The signal from a weight sensor is unusual

DTC SET CONDITIONS

There DTCs are set if communication between the weight sensor and the occupant classification-ECU is not possible or faulty.

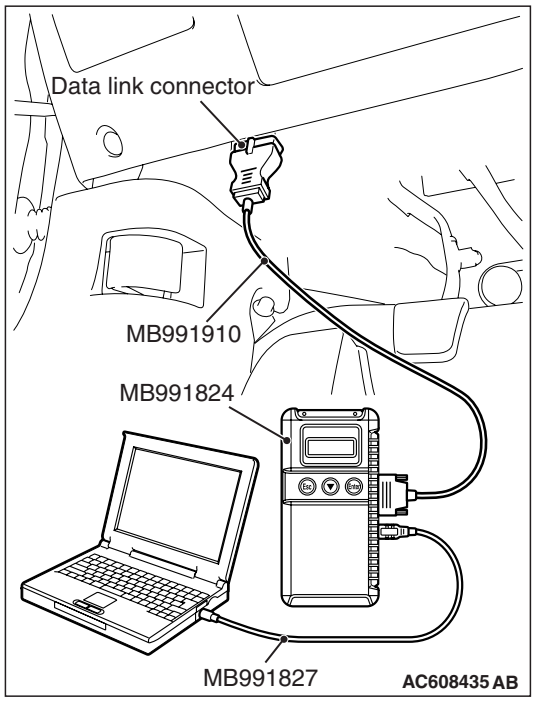
TROUBLESHOOTING HINTS

Malfunction of weight sensor

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)



STEP 1. Recheck for diagnostic trouble code.

Check again if the DTC is set.
(1) Erase the DTC.
(2) Turn the ignition switch to the "ON" position.
(3) Check if the DTC is set.
(4) Turn the ignition switch to the "LOCK" (OFF) position.

Q: Is the DTC set?

YES : Go to Step 2.
NO : There is an intermittent malfunction such as poor engaged connector(s) or open circuit (Refer to GROUP 00, How to Cope with Intermittent Malfunction P.00-13).

STEP 2. Check the weight sensor.

Replace weight sensor
Check the diagnostic trouble code.

Q: Is DTC U1419, U141A, U141B, U141C, U1423 set?

YES : Replace the front seat cushion frame (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
NO : The procedure is complete.

TROUBLE SYMPTOM CHART

M1524003401090

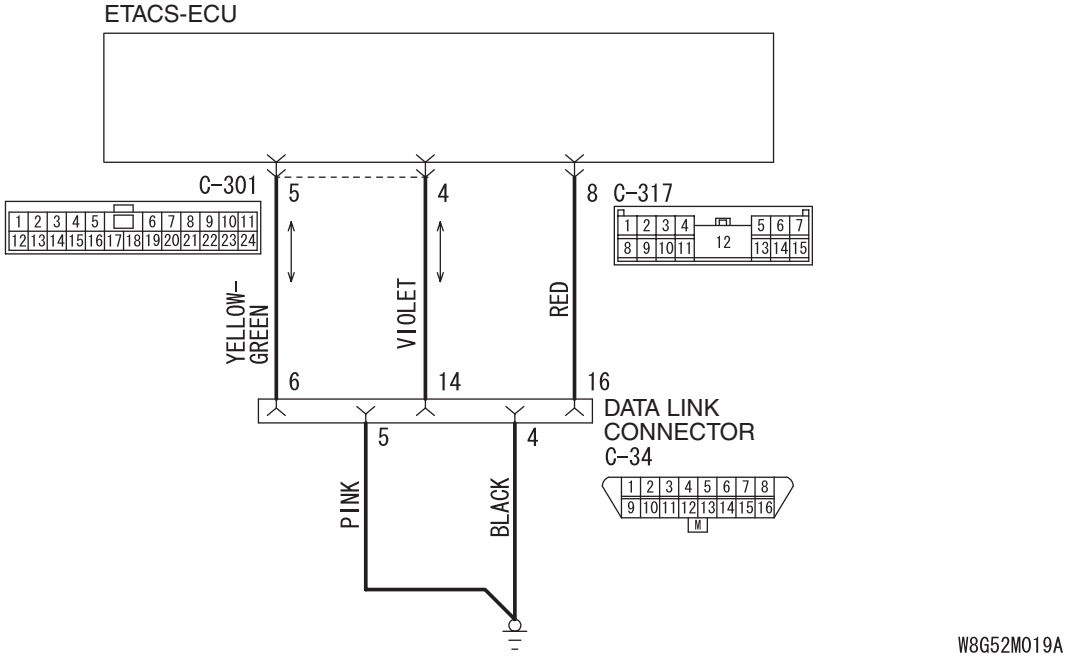
⚠ CAUTION
During diagnosis, a DTC code associated with another system may be set when the ignition switch is turned on with connector(s) disconnected. After completing the repair, confirm all systems for DTC code(s). If DTC code(s) are set, erase them all.

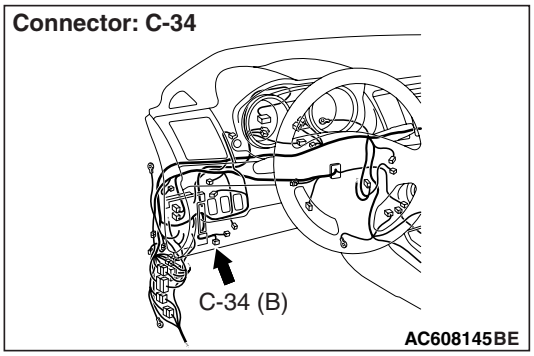
Symptom	Inspection procedure No.	Reference page
Communication between the scan tool and the SRS-ECU is not possible.	1	P.52B-340
Power supply circuit system	2	P.52B-342
The SRS warning light does not illuminate.	3	P.52B-345

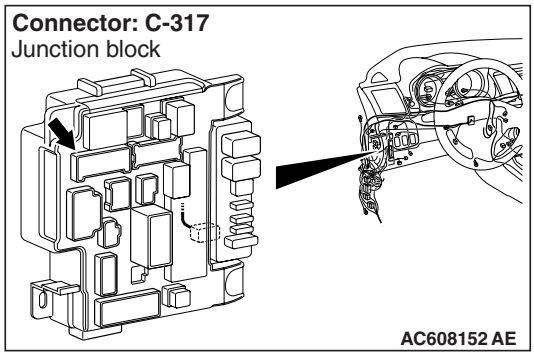
SYMPTOM PROCEDURES

INSPECTION PROCEDURE 1: Communication between the Scan Tool and the SRS-ECU is not possible.

Diagnosis Connector Circuit







TECHNICAL DESCRIPTION (COMMENT)

If the scan tool (M.U.T.-III Sub Assembly) can not communicate with the SRS system, the CAN bus lines may be defective. If the SRS system does not work, the SRS-ECU or its power supply circuit may be defective.

TROUBLESHOOTING HINTS (The most likely causes for this case:)

- Damaged wiring harness or connector
- Malfunction of the SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable

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- MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. V.C.I. status check

Check that the V.C.I. indicator light is illuminated in green.

Q: Is it illuminated in green?

YES : Diagnose the CAN bus line, and repair if necessary. (Refer to GROUP 54C, Diagnosis P.54C-16.)

NO : Go to Step 2.

STEP 2. Connector check: C-317 ETACS-ECU connector, C-34 data link connector

Q: Is the check result normal?

YES : Go to Step 3.

NO : Repair the connector concerned.

STEP 3. Wiring harness check between the C-317 ETACS-ECU connector No. 8 and the C-34 data link connector terminal No. 16

- Check the power supply line for open circuit.

Q: Is the check result normal?

YES : Go to Step 4.

NO : Repair the wiring harness.

STEP 4. Wiring harness check between the C-34 data link connector terminal No. 4 or 5 and the ground

- Check the ground wires for open circuit.

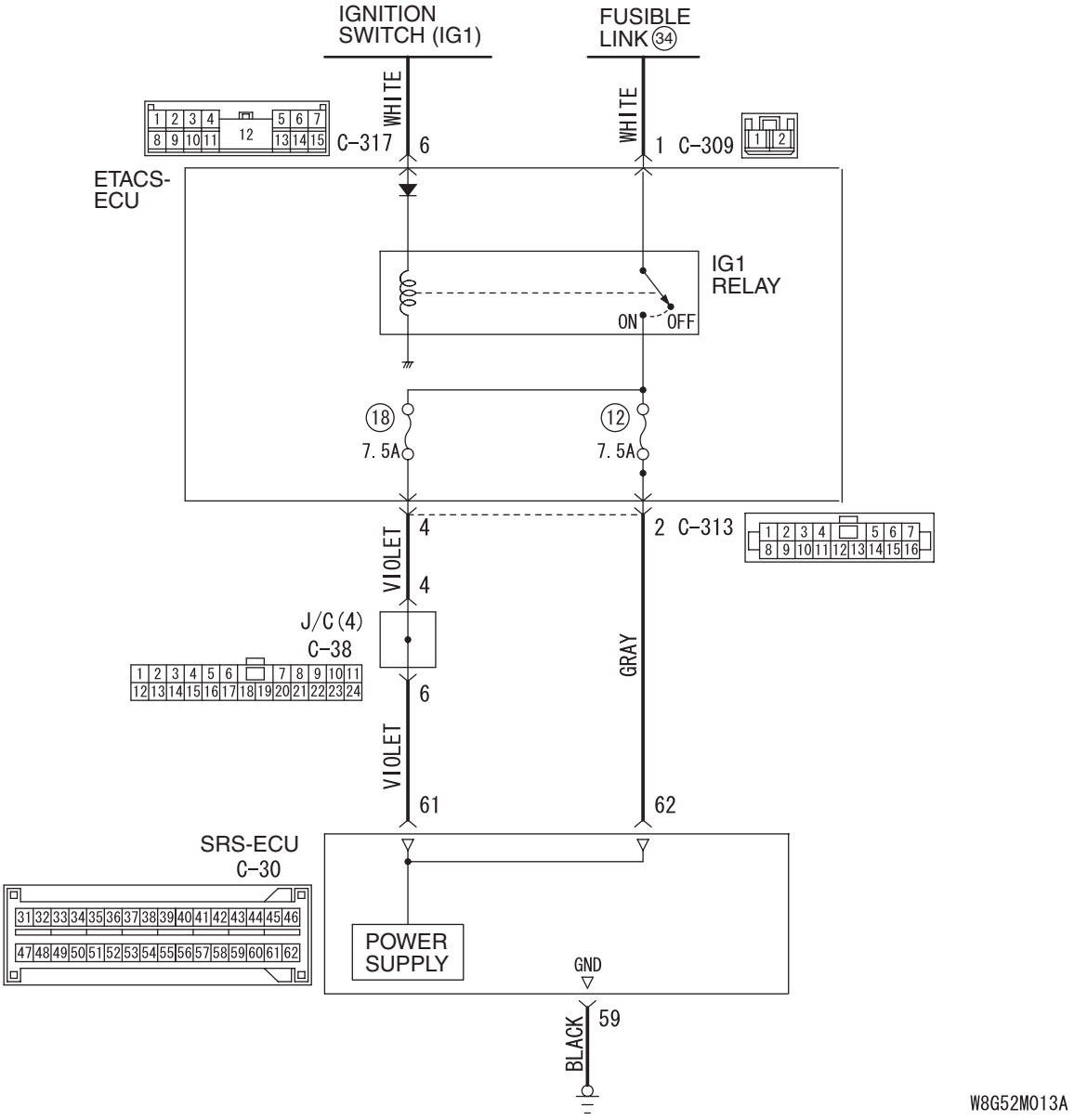
Q: Is the check result normal?

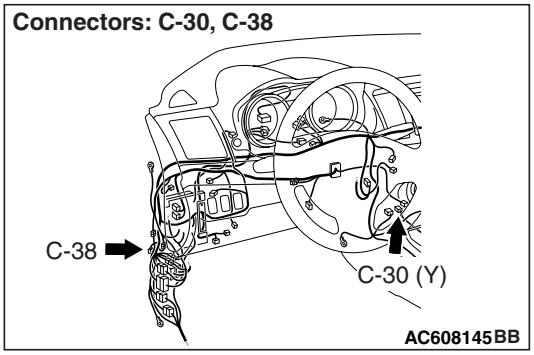
YES : Check the scan tool.

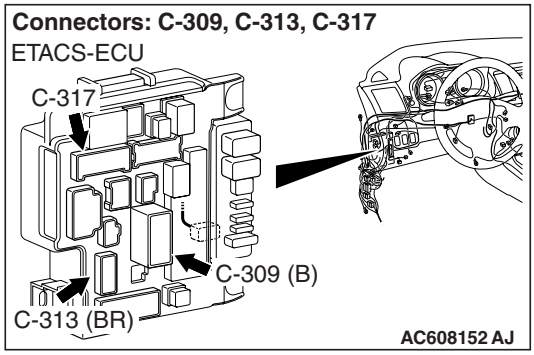
NO : Repair the wiring harness.

INSPECTION PROCEDURE 2: Power supply circuit system

IG1 Power Supply Circuit







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CIRCUIT OPERATION

- The SRS-ECU is energized by the ignition switch (IG1) through multi-purpose fuse 18 and the SRS-ECU terminal 61 and multi-purpose fuse 12 and the SRS-ECU terminal 62.
- If the power supply to the SRS-ECU has failed, scan tool (M.U.T.-III Sub Assembly) will not be able to communicate with it.

TROUBLESHOOTING HINTS (THE MOST LIKELY CAUSES FOR THIS CASE:)

- Damaged wiring harness or connector
- Defective battery
- Charging system failed
- Malfunction of the SRS-ECU

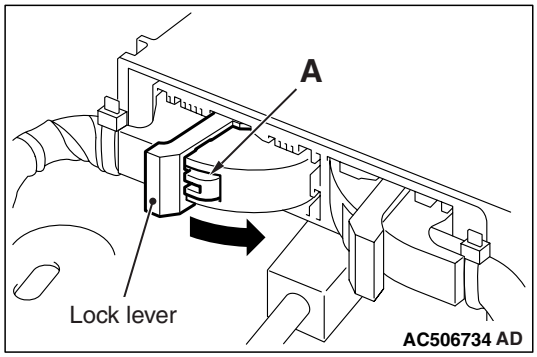
DIAGNOSIS

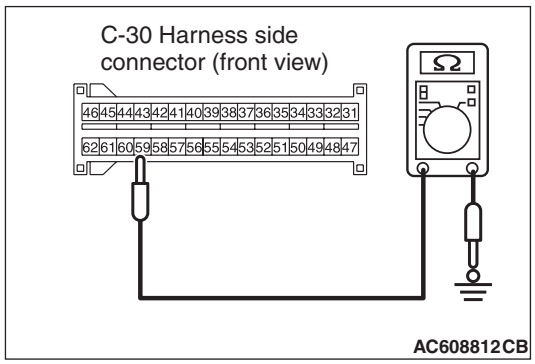
Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Resistance measurement at the C-30 SRS-ECU connectors

(1) While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever, and disconnect the C-30 SRS-ECU connectors.





(2) Take the measurements below at the C-30 wiring harness side connectors.
- Continuity between C-30 wiring harness side connector terminal No. 59 and body ground

OK: Continuity (Less than 2 ohms)

Q: Is the check result normal?

YES : Go to Step 2.
NO : Repair the wiring harness between the C-30 SRS-ECU connector terminal No. 59 and the ground.

STEP 2. Wiring harness check between the C-30 SRS-ECU connector terminal Nos. 61 and 62 and the ignition switch IG1

NOTE: Prior to the wiring harness inspection, check the ETACS-ECU connectors C-309, C-317 and C-313, and repair if necessary.

- Check the power supply line for open circuit.

Q: Is the check result normal?

YES : Go to Step 3.
NO : Repair the wiring harness.

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STEP 3. Retest the system

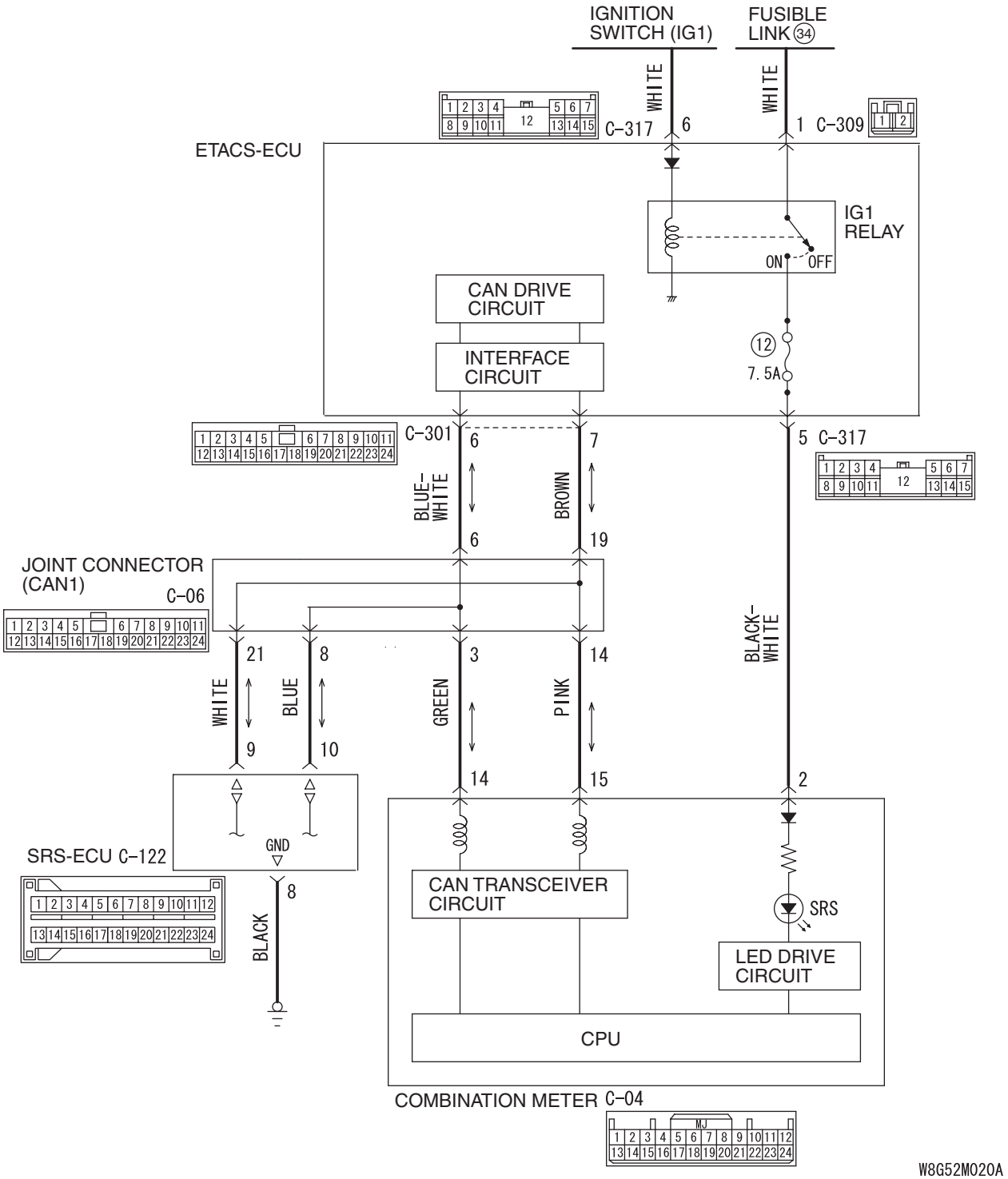
Q: Is the communication between scan tool and SRS-ECU possible?

YES : Intermittent malfunction (Refer to GROUP 00, How to Use Troubleshooting/Inspection Service Points —How to Cope with Intermittent Malfunction P.00-13.)

NO : Replace SRS-ECU (Refer to P.52B-364).

INSPECTION PROCEDURE 3:The SRS Warning Light does not Illuminate.

SRS Warning Light Circuit



CIRCUIT OPERATION

- SRS-ECU sends the SRS warning light signal to the combination meter via the CAN communication.

TROUBLESHOOTING HINTS

- Damaged wiring harness and connectors
- As a cause, the failure of CAN bus line, combination meter, or SRS-ECU is suspected.

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- Combination meter malfunction
- Malfunction of SRS-ECU

DIAGNOSIS

Required Special Tools:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface (V.C.I.)
  - MB991827: M.U.T.-III USB Cable
  - MB991910: M.U.T.-III Main Harness A (Vehicles with CAN communication system)

STEP 1. Using scan tool MB991958, diagnose the CAN bus line.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

Use scan tool MB991958 to diagnose the CAN bus lines.

(1) Connect scan tool MB991958 to the data link connector.

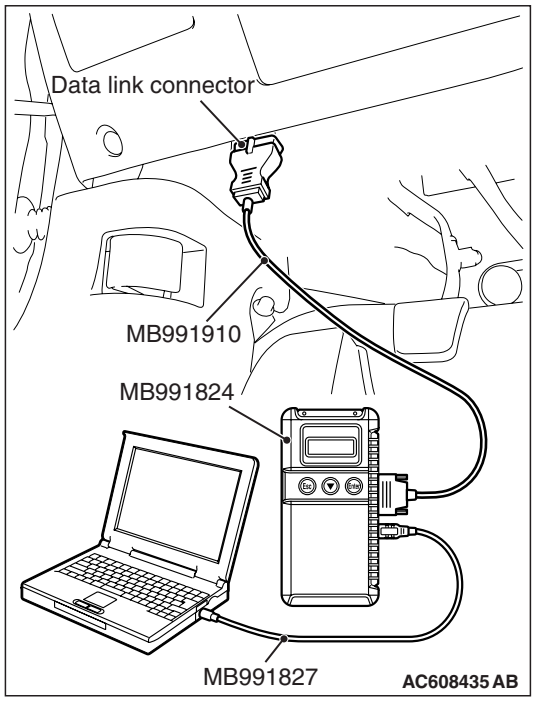
(2) Turn the ignition switch to the "ON" position.

(3) Diagnose the CAN bus line.

Q: Is the check result satisfactory?

YES : Replace the SRS-ECU (Refer to P.52B-364).

NO : Repair the CAN bus line (Refer to GROUP 54C, Diagnosis P.54C-16).



DATA LIST REFERENCE TABLE

M1524003500276

DATA LIST OUTPUT

The following items can be read by the scan tool from the SRS-ECU input data.

Item No.	Display on M.U.T.-III	Check conditions	Normal conditions
01	SRS warning light "ON" request	• Ignition switch: ON • After warning lamp pre-check	OFF
		• Ignition switch: ON • During warning lamp pre-check	ON
02	Pass. SRS light "ON" request	• Ignition switch: ON • After warning light pre-check	OFF
		• Ignition switch: ON • During warning light pre-check	ON
03	Driver's seatbelt switch	• Ignition switch: ON • After warning light pre-check • Wear the driver seatbelt.	Fastened
		• Ignition switch: ON • After warning light pre-check • Undo the driver seatbelt.	Unfastened
04	Passenger's seatbelt switch	• Ignition switch: ON • After warning light pre-check • Wear the passenger seatbelt.	Fastened
		• Ignition switch: ON • After warning light pre-check • Undo the passenger seatbelt.	Unfastened
05	Passenger seat airbag ignition	• Ignition switch: ON • After warning light pre-check • Apply a load to the passenger seat.	Permission
		• Ignition switch: ON • After warning light pre-check • Undo a load from a passenger seat.	Prohibition

The following items can be read by the scan tool from the occupant classification-ECU input data.

Item No.	Display on M.U.T.-III	Check conditions	Normal conditions
01	Passenger weight	Apply a load to the passenger seat.	-2,048 kg (-4,515 lb) to 2,048 kg (4,515 lb)
02	Dr seat position sensor current	Slide the seat the back-end to the front-position.	0 to 4,095.93 mA
03	Dr seat position sensor voltage	Slide the seat the back-end to the front-position.	0 to 5,000 mV
07	Dr seat position sensor status	Slide the seat the back-end to the front-position.	Not in Frontal Zone/In Frontal Zone/Undetermined
08	occupant classification status	Apply a load to the passenger seat.	Empty/PFIS/Child/More 5th %/Undermined
10	Battery voltage	Always	0 to 30 V

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Item No.	Display on M.U.T.-III	Check conditions	Normal conditions
21	Pa seat weight sensor 1 RR	Apply a load to the passenger seat.	-2,048 kg (-4,515 lb) to 2,048 kg (4,515 lb)
22	Pa seat weight sensor 1 RR volt	Apply a load to the passenger seat.	0 to 5,000 mV
23	Pa seat weight sensor 2 RF	Apply a load to the passenger seat.	-2,048 kg (-4,515 lb) to 2,048 kg (4,515 lb)
24	Pa seat weight sensor 2 RF volt	Apply a load to the passenger seat.	0 to 5,000 mV
25	Pa seat weight sensor 3 LF	Apply a load to the passenger seat.	-2,048 kg (-4,515 lb) to 2,048 kg (4,515 lb)
26	Pa seat weight sensor 3 LF volt	Apply a load to the passenger seat.	0 to 5,000 mV
27	Pa seat weight sensor 4 LR	Apply a load to the passenger seat.	-2,048 kg (-4,515 lb) to 2,048 kg (4,515 lb)
28	Pa seat weight sensor 4 LR volt	Apply a load to the passenger seat.	0 to 5,000 mV
30	VIN Information	Always	–

ACTUATOR TEST REFERENCE TABLE

M1524003600198

The scan tool activates the following actuators for testing.

Item No.			
01	SRS warning light	SRS warning light illumination	ON

FAIL-SAFE FUNCTION REFERENCE TABLE

M1524003700151

If the SRS-ECU determines that the following parts are defective, the SRS-ECU operates the SRS warning light and controls as follows.

- If the seat slide sensor is defective, the SRS-ECU determines that the seat is in its backward position and controls the air bag.
- If the occupant classification sensor or the occupant classification-ECU is defective, the SRS-ECU determines that the occupant classification is class 2 [The occupant classification sensor detects 30 kg (66 pounds) or more.] and controls the air bag and the passenger's air bag OFF indicator light.

ACCURACY CHECK OF OCCUPANT CLASSIFICATION SENSOR REFERENCE TABLE

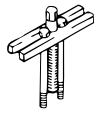
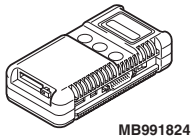
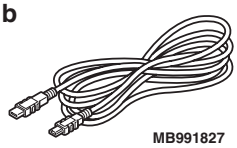
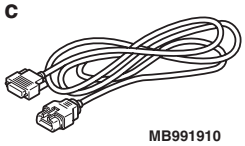
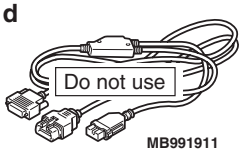
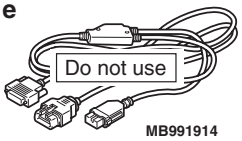
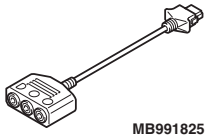
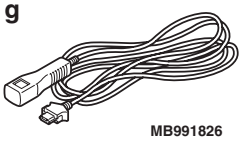
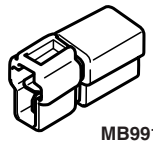
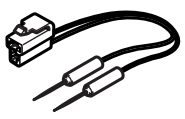
M1524025800060

The scan tool can be used to perform the next function.

- Seat Weight Sensor Accuracy Check
- Zero-calibration

SPECIAL TOOLS

M1524000701111

Tool	Tool number and name	Supersession	Application
 MB990803AE	MB990803 Steering wheel puller	General service tool	Steering wheel removal
a  MB991824 b  MB991827 c  MB991910 d  MB991911 e  MB991914 f  MB991825 g  MB991826 MB991958	MB991958 a: MB991824 b: MB991827 c: MB991910 d: MB991911 e: MB991914 f: MB991825 g: MB991826 Scan tool (M.U.T.-III sub assembly) a: Vehicle communication interface (V. C. I.) b: M.U.T.-III USB cable c: M.U.T.-III main harness A (Vehicles with CAN communication system) d: M.U.T.-III main harness B (Vehicles without CAN communication system) e: M.U.T.-III main harness C (for Daimler Chrysler models only) f: M.U.T.-III measurement adapter g: M.U.T.-III trigger harness	MB991824-KIT *NOTE: g: MB991826 M.U.T.-III Trigger Harness is not necessary when pushing V.C.I. ENTER key.*	Checking diagnostic trouble code **⚠ CAUTION** **For vehicles with CAN communication, use M.U.T.-III main harness A to send simulated vehicle speed. If you connect M.U.T.-III main harness B instead, the CAN communication does not function correctly.**
 MB991865	MB991865 Dummy resistor		SRS air bag and seat belt with pre-tensioner circuit check
 MB991866	MB991866 Resistor harness		SRS air bag circuit check

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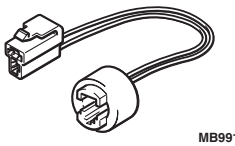
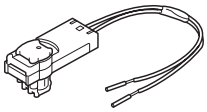
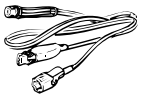
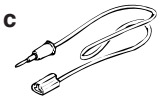
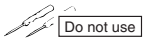
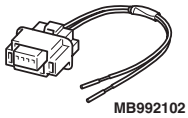
Tool	Tool number and name	Supersession	Application
 MB991884	MB991884 Resistor harness		Knee air bag, curtain air bag and seat belt with pre-tensioner circuit check
 MB991885	MB991885 Adapter harness		Deployment of Knee air bag, curtain air bag and seat belt with pre-tensioner inside or outside the vehicle
a b  c  d  Do not use MB991223	MB991223 a: MB991219 b: MB991220 c: MB991221 d: MB991222 Harness set a: Test harness b: LED harness c: LED harness adaptor d: Probe	General service tools	Checking the continuity and measuring the voltage at the SRS-ECU harness connector
 MB992102	MB992102 Air bag inflation adapter harness		Deployment of driver's or passenger's (front) air bag module outside the vehicle
MB992006	MB992006 Extra fine probe	General service tool	Continuity check and voltage measurement at harness wire or connector for loose, corroded or damaged terminals, or terminals pushed back in the connector.

TEST EQUIPMENT

M1524000800513

Tool	Name	Use
AC000019AB	Digital multi-meter Use a multi-meter for which the maximum test current is 2 mA or less at the minimum range of resistance measurement	Checking the SRS electrical circuitry with SRS check harness

POST-COLLISION DIAGNOSIS

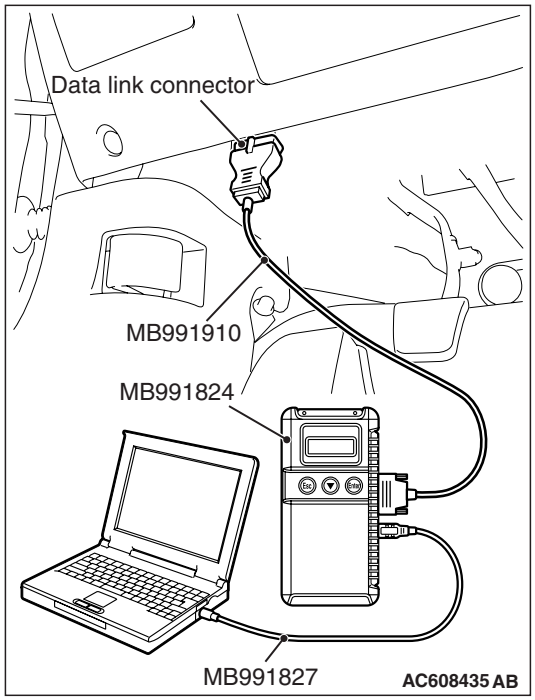
M1524001101479

To inspect and service the SRS after a collision (whether or not the air bags have deployed), perform the following steps.

SRS-ECU MEMORY CHECK

Required Special Tool:

- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824:Vehicle Communication Interface (V.C.I.)
  - MB991827:M.U.T.-III USB Cable
  - MB991910:M.U.T.-III Main Harness A (Vehicles with CAN Communication System)



⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

1. Connect scan tool MB991958 to the data link connector (16-pin).
2. Read (and write down) all displayed diagnostic trouble codes (Refer to SRS-ECU P.52B-31, Ocuupant classification-ECU P.52B-280).

   NOTE: If the battery power supply has been disconnected or disrupted by the collision, scan tool MB991958 cannot communicate with the SRS-ECU. Check the battery, then check and, if necessary, repair the front wiring harness and the instrument panel wiring harness before proceeding.
3. Read the data list (fault duration and how many times memories are erased), using scan tool MB991958 (Refer to P.52B-347).
4. Erase the diagnostic trouble codes, and then turn the ignition switch to the LOCK (OFF) position.
5. Wait for at least one second, and then turn the ignition switch to the ON position again.
6. After waiting 15 seconds or more, note all displayed diagnostic trouble codes (Refer to SRS-ECU P.52B-31, Ocuupant classification-ECU P.52B-280).

REPAIR PROCEDURE

WHEN FRONT AIR BAGS DEPLOY IN A COLLISION.

1. Replace the following parts with new ones:
   - Front impact sensors (Refer to P.52B-361).
   - SRS-ECU (Refer to P.52B-364).
   - Driver's and passenger's (front) air bag modules (Refer to P.52B-367).
   - Knee air bag module (Refer to P.52B-378).
   - Seat belt with pre-tensioner (Refer to P.52B-389).
   - Instrument panel assembly (Refer to GROUP 52A, Instrument Panel Assembly P.52A-2).

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2. Check the following parts and replace if there are any malfunctions:
   - Clock spring (Refer to P.52B-367).
   - Seat slide sensor
   - Occupant classification-ECU and weight sensor.
   - Seat belt switch (Refer to GROUP 52A, Front Seat Belt, Inspection P.52A-29).
   - Steering wheel, steering column shaft assembly
   (1) Check the wiring harness (built into the steering wheel) and connectors for damage, and terminals for deformation.
   (2) Install the air bag module to check fit and alignment with the steering wheel.
   (3) Check the steering wheel for noise, binding or difficult operation and excessive free play.
   (4) Check the steering column shaft shock absorbing mechanism (Refer to GROUP 37, On-Vehicle Service – Steering Column Shaft Assembly Shock Absorbing Mechanism Check P.37-20).
3. Check the wiring harnesses for binding, the connectors for damage, poor connections, and the terminals for deformation (Refer to P.52B-24).

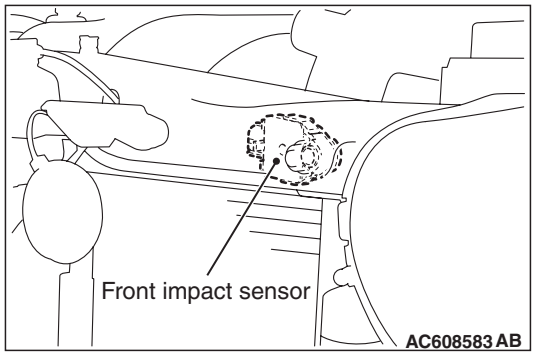
WHEN SIDE AIR BAGS DEPLOY IN A COLLISION.

1. Replace the following parts with new ones:
   - SRS-ECU (Refer to P.52B-364).
   - Side impact sensors (Refer to P.52B-382).
   - Front seatback pad and frame assembly (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
2. Check the wiring harnesses for binding, the connectors for damage, poor connections, and the terminals for deformation (Refer to P.52B-24).

WHEN AIR BAGS DO NOT DEPLOY IN LOW-SPEED COLLISION.

Check the SRS components. If the SRS components are showing any visible damage such as dents, cracks, or deformation, replace them with new ones. Concerning parts removed for inspection, replacement with new parts and cautionary points for working, refer to appropriate INDIVIDUAL COMPONENT SERVICE P.52B-357.

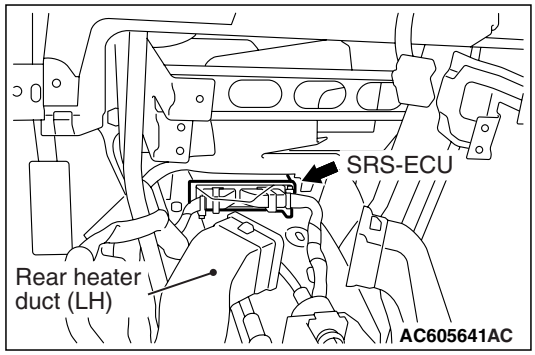
FRONT IMPACT SENSOR



1. Check the front end upper bar for distortion and rust.
2. Check the front impact sensor for dents, cracks, deformation or rust.
3. Check the front impact sensor wiring harness for binding, check the connector for damage, and check the terminals for deformation.

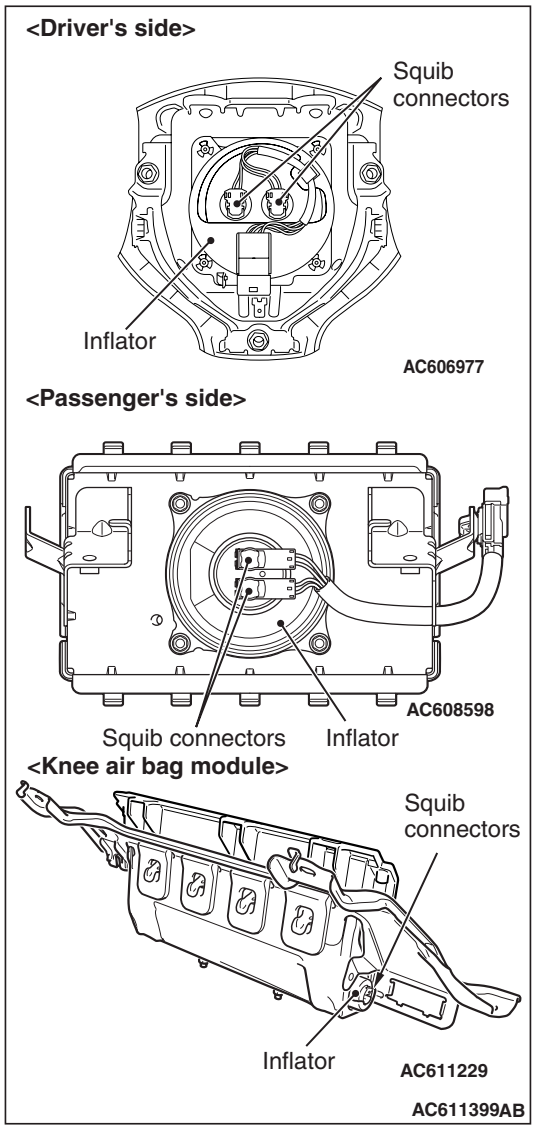
NOTE: The illustration shows the side impact sensor (LH). The position of the side impact sensor (RH) is symmetrical to this.

SRS-ECU



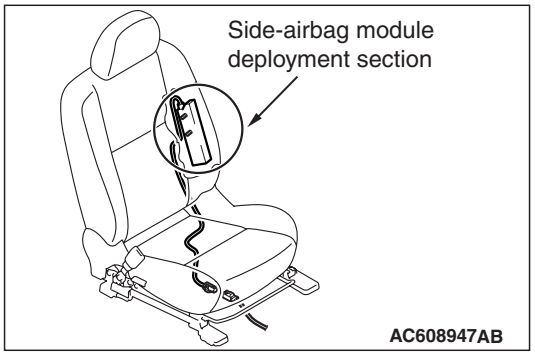
1. Check the SRS-ECU case and brackets for dents, cracks or deformation.
2. Check the connector for damage, and the terminals for deformation.
3. Check the installation of the SRS-ECU and its bracket.

AIR BAG MODULES



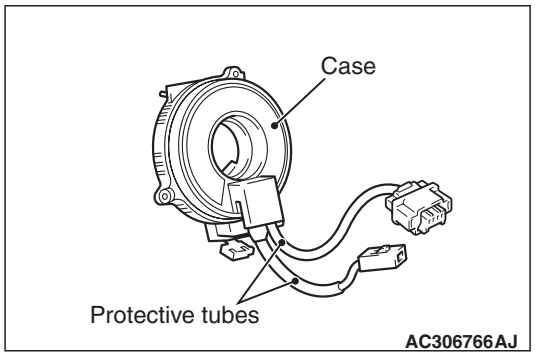
1. Check the pad cover for dents, cracks or deformation.
2. Check the connector for damage, terminal deformities, and the harness for binding.
3. Check the air bag inflator case for dents, cracks or deformities.
4. Install the air bag module (driver's side) to the steering wheel to check installation or alignment with the steering wheel.
5. Install the air bag module (front passenger's side) to the instrument panel and front deck crossmember to check installation or alignment.

FRONT SEATBACK ASSEMBLY (SIDE-AIRBAG MODULE)



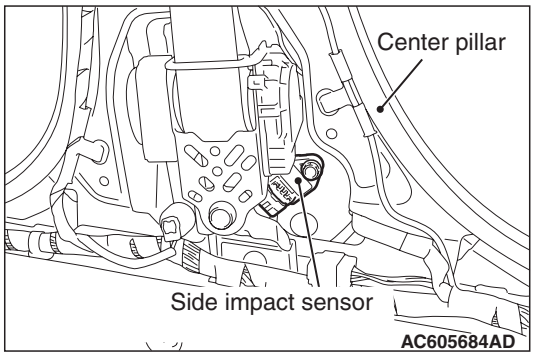
1. Check the air bag module deployment section for dents or deformation.
2. Check that there is no connector damage, bent terminals or harness crimping.

CLOCK SPRING



1. Check the clock spring connectors and protective tube for damage, and the terminals for deformation.
2. Visually check the case for damage.

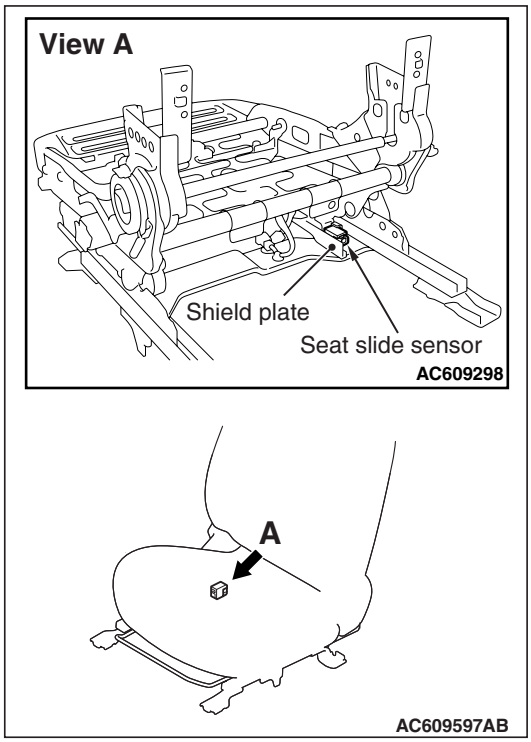
SIDE IMPACT SENSOR



1. Check that there is no bending or corrosion in the center pillar.
2. Check that there is no denting, breakage or bending of the side impact sensor.
3. Check that there is no harness crimping, connector damage or bent terminals.

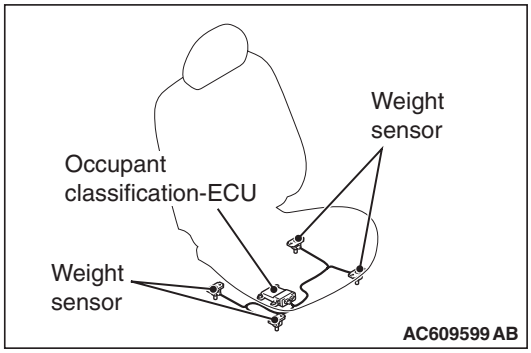
   NOTE: The illustration shows the side impact sensor (LH). The position of the side impact sensor (RH) is symmetrical to this.

SEAT SLIDE SENSOR



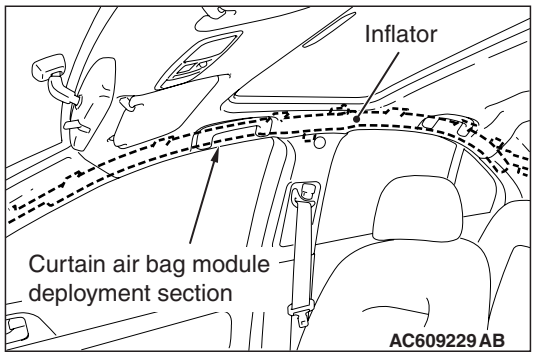
1. Check that there is no connector damage, bent terminals or harness crimping.
2. Check the installation of the seat slide sensor.

OCCUPANT CLASSIFICATION-ECU AND WEIGHT SENSOR



1. Check the occupant classification-ECU case and weight sensor for dents, cracks or deformation.
2. Check the connector for damage, and the terminals for deformation.
3. Check the installation of the occupant classification-ECU and weight sensor.

CURTAIN AIR BAG MODULE



1. Check that the curtain air bag deployment part of the headlining is normal.
2. Check the inflator surface for cracks, dents or deformations.
3. Check the connector for damage, the terminal for deformation, and the harness for binding.

STEERING WHEEL, STEERING COLUMN AND SHAFT ASSEMBLY

1. Check the wiring harness (built into the steering wheel) and the connectors for damage, and the terminals for deformation.
2. Install the air bag module to check fit or alignment with the steering wheel.
3. Check the steering wheel for noise, binding or difficult operation and excessive free play.
4. Check the steering column shaft shock absorbing mechanism (Refer to GROUP 37, On-Vehicle Service – Steering Column Shaft Assembly Shock Absorbing Mechanism Check P.37-20).

SEAT BELT WITH PRE-TENSIONER

1. Check the seat belt for damage or deformation.
2. Check the seat belt with pre-tensioner for cracks or deformation.
3. Check that the unit is installed correctly to the vehicle body.

HARNESS CONNECTOR (FRONT WIRING HARNESS, INSTRUMENT PANEL WIRING HARNESS, AND FLOOR WIRING HARNESS)

Check the harnesses for binding, the connectors for damage, poor connection, and the terminals for deformation (Refer to P.52B-24).

INDIVIDUAL COMPONENT SERVICE

M1524002900936

⚠ ***WARNING***

- ***If heat damage occurs during paint work, remove the SRS-ECU, the air bag modules, the clock spring, front seats, impact sensor and the seat belt with pre-tensioner. Recheck the SRS system operability after reinstalling them.***
  - ***SRS-ECU, air bag modules, clock spring, front seats, impact sensor: 93°C (200°F) or more***
  - ***Seat belt with pre-tensioner: 90°C (194°F) or more***
- ***If the SRS components are removed for the purpose of inspection, sheet metal repair, painting, etc., they should be stored in a clean, dry place until they are reinstalled.***

If the SRS components are to be removed or replaced as a result of maintenance, diagnosis, etc., follow the appropriate procedure in this section. (Front impact sensor: refer to P.52B-361, SRS-ECU: refer to P.52B-364, Air bag modules and clock spring: refer to P.52B-367, Side-airbag module: refer to GROUP 52A, Front Seat Assembly P.52A-21, Knee air bag module: refer to P.52B-378, Side impact sensor: refer to P.52B-382, Curtain air bag module: refer to P.52B-385, Seat belt with pre-tensioner: refer to P.52B-389).

ON-VEHICLE SERVICE

ACCURACY CHECK OF OCCUPANT CLASSIFICATION SENSOR

M1524025100113

⚠ CAUTION

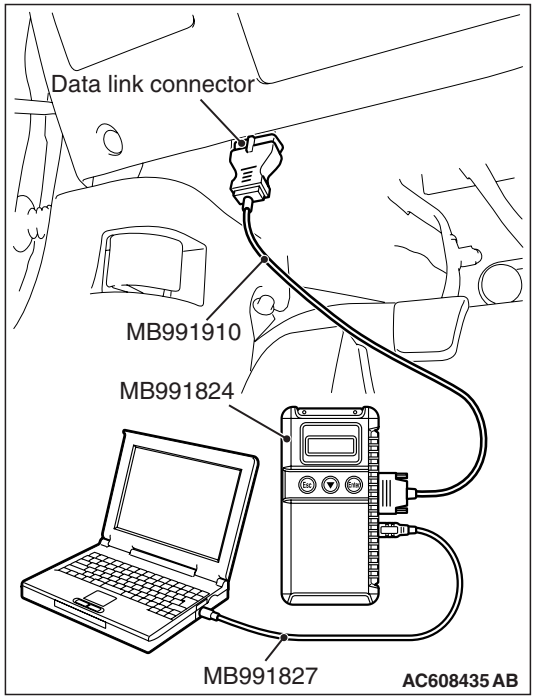
The following precaution must be observed when executing accuracy testing and calibration.

- **Perform the occupant classification sensor calibration at room temperature. (Proposal: 20 ±15° C (68 ±27° F)) (Before the calibration, place the occupant classification sensor more than 30 minutes at room temperature.)**
- **Do not apply any load or vibration while the weight check and the calibration is performed.**
- **Perform the weight check and the calibration after seat components are all assembled.**

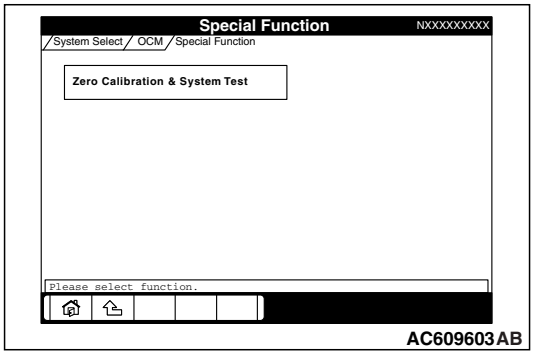
⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

1. Connect scan tool MB991958 to the data link connector.



2. To execute accuracy check and calibration, operate scan tool MB991958 (M.U.T.-III Sub Assembly) as follows.
   (1) Select "OCM".
   (2) Select "Special Function".
   (3) Select "Zero Calibration & System Test".
   (4) The start of the zero calibration.



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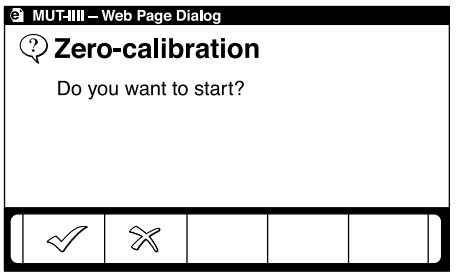
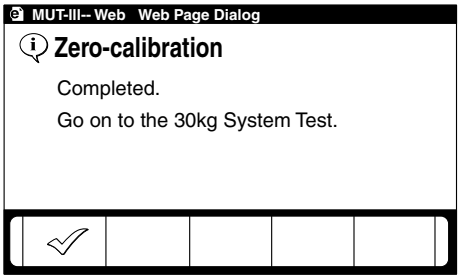


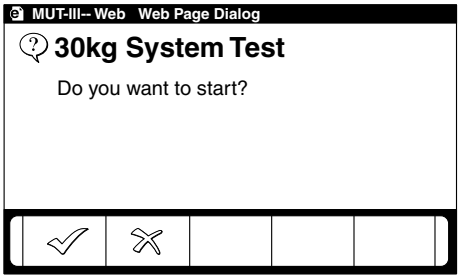
AC609604 AB

(5) The execution check of the zero calibration.



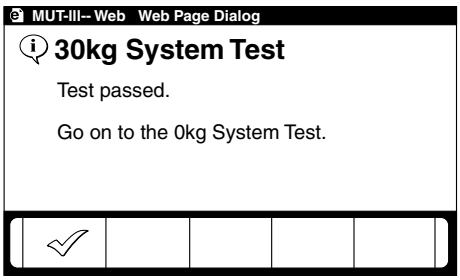
AC609605 AB

(6) The zero calibration has been completed when the screen as shown in the illustration is displayed. The OK button is pushed and it progresses to the next.
(7) The start of 30 kg (66 pounds) system test.



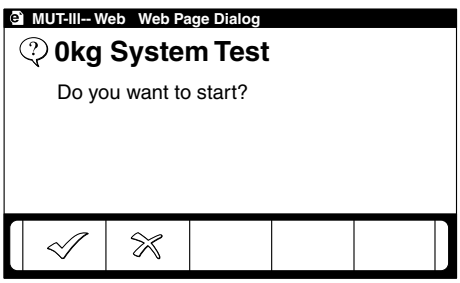
AC609606 AB

(8) The execution check of the 30 kg (66 pounds) system test.



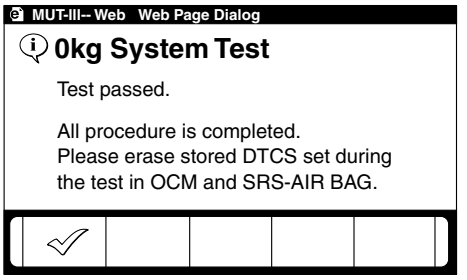
AC609607 AB

(9) The 30 kg (66 pounds) system test has been completed when the screen as shown in the illustration is displayed. The OK button is pushed and it progresses to the next.
(10) The start of 0 kg (0 pound) system test.



AC609608 AB

(11) The execution check of the 0 kg (0 pound) system test.


MUT-III-- Web Web Page Dialog
0kg System Test
Test passed.
All procedure is completed.
Please erase stored DTCS set during the test in OCM and SRS-AIR BAG.
AC609609AB

(12)The 0 kg (0 pound) system test has been completed when the screen as shown in the illustration is displayed.

FRONT IMPACT SENSORS

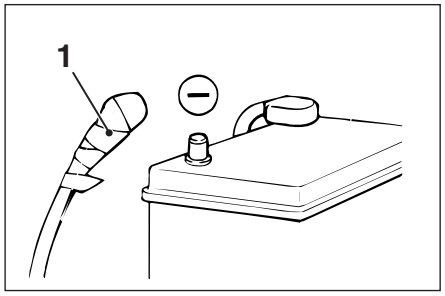
REMOVAL AND INSTALLATION

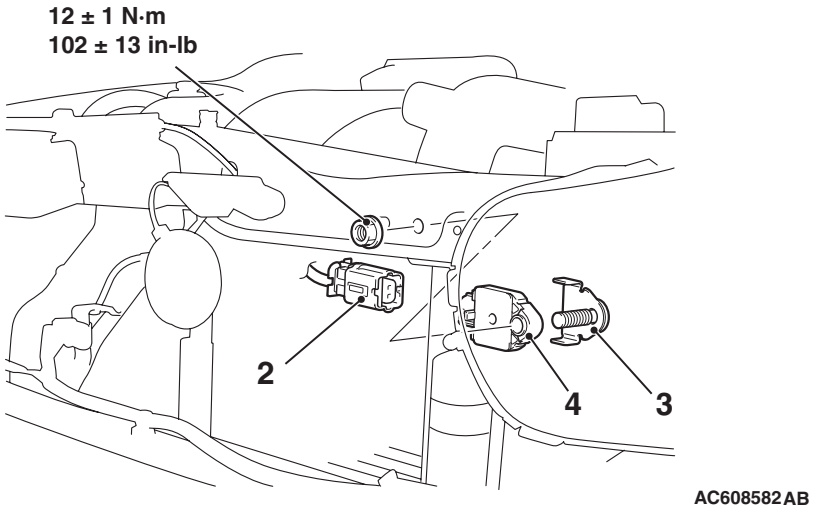
M1524001500957

⚠ WARNING

- ***Never repair or disassemble the front impact sensor. If faulty, replace it.***
- ***Handle the front impact sensors very carefully, taking care not to drop them. They must be replaced if they are dropped.***
- ***Replace the sensors with new ones after the air bag has deployed.***

Pre-removal Operation
- Turn the ignition key to the "LOCK" (OFF) position.





Removal steps

<<A>> 1. Negative (−) battery cable connection
- Headlamp support panel cover (Refer to Group 51, Front Bumper Assembly and Radiator Grille P.51-3).
- Front end upper bar assembly (Refer to Group 14, Radiator P.14-26).

<<B>> 2. Front impact sensor connector connection
3. Air bag sensor bracket
4. Front impact sensor

Installation steps

>>A<< • Pre-installation inspection

>>B<< 4. Front impact sensor

Installation steps (Continued)

3. Air bag sensor bracket
2. Front impact sensor connector connection
- Front end upper bar assembly (Refer to Group 14, Radiator P.14-26).
- Headlamp support panel cover (Refer to Group 51, Front Bumper Assembly and Radiator Grille P.51-3).

1. Negative(−) battery cable connection

>>C<< • Post-installation inspection

NOTE: The figure indicates the left front impact sensor. The right impact sensor is symmetrical to this.

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REMOVAL SERVICE POINTS

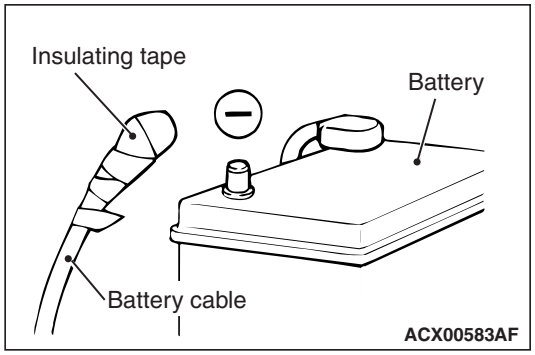
<<A>> NEGATIVE (−) BATTERY CABLE DISCONNECTION

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-24).

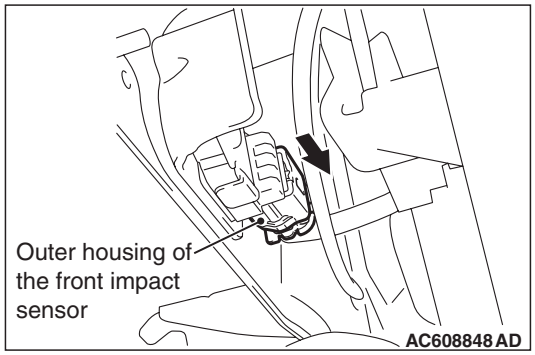
⚠ ***WARNING***

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.



Disconnect the negative (−) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.

<<B>> FRONT IMPACT SENSOR CONNECTOR REMOVAL



Side the outer housing of the front impact sensor connector in the arrow direction shown, and disconnect the connector.

INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

When installing the new front impact sensor, refer to "INSPECTION."

>>B<< FRONT IMPACT SENSOR INSTALLATION

⚠ ***WARNING***

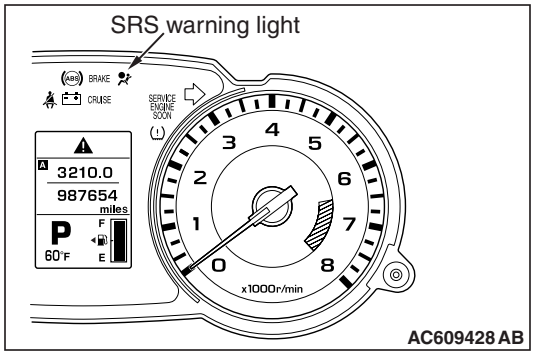
The SRS may not activate properly if a front impact sensor is not installed properly, which could result in serious injury or death to the vehicle's driver.

1. Securely connect the connector.

2. Position the front impact sensor facing toward the front of the vehicle as indicated by the arrow on the label, and install it securely.

>>C<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (–) battery cable.
2. Turn the ignition key to "ON" position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and then go out?
4. If yes, the SRS system is functioning properly.
   If not, consult page P.52B-31.



INSPECTION

M1524001600716

⚠ *WARNING*

If a dent, crack, deformation or rust is detected, replace with a new sensor.

NOTE: For checking of the front impact sensor other than described below, refer to the section concerning SRS diagnosis (Refer to P.52B-31).

1. Check the front impact sensor and bracket for dents, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the radiator support panel.

SRS CONTROL UNIT (SRS-ECU)

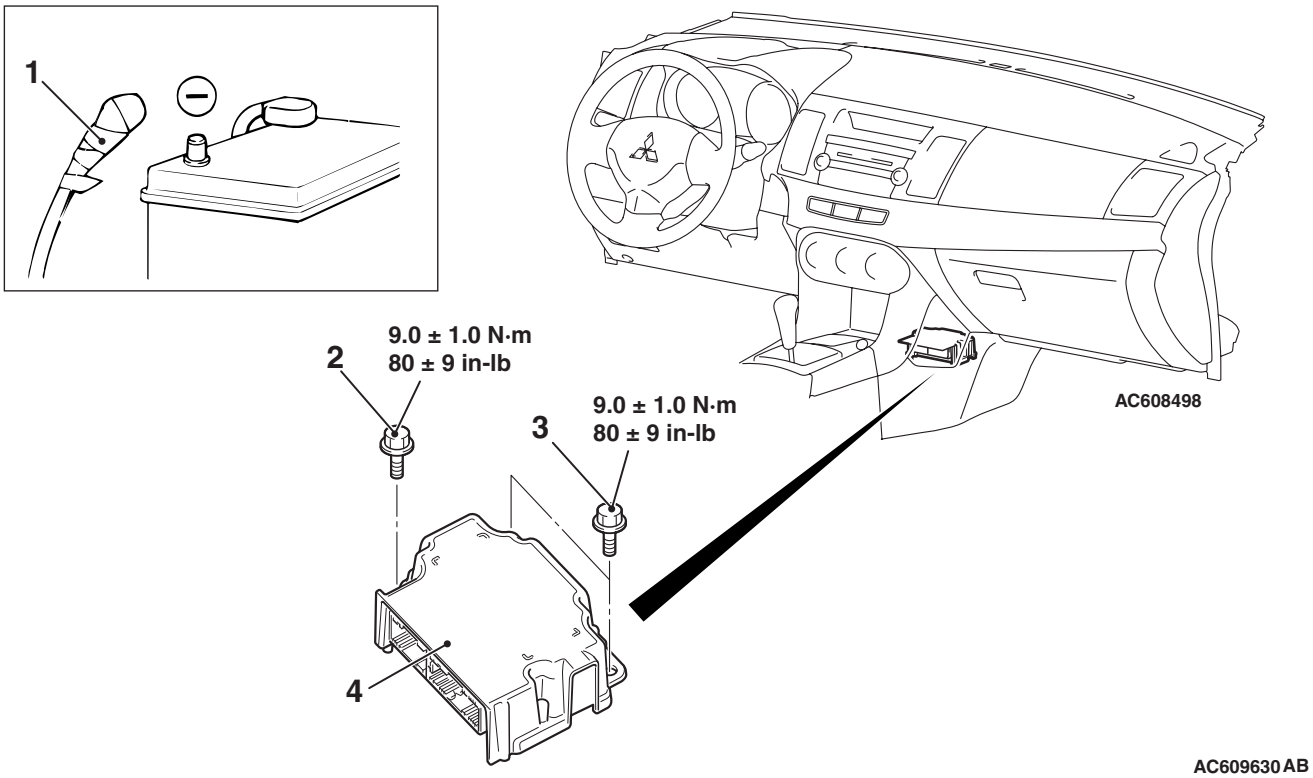
REMOVAL AND INSTALLATION

M1524002101085

⚠ WARNING

- ***Never attempt to disassemble or repair the SRS-ECU. If faulty, replace it.***
- ***Do not drop or subject the SRS-ECU to impact or vibration. If denting, cracking, deformation, or rust are discovered in the SRS-ECU, replace it with a new SRS-ECU.***
- ***After deployment of an air bag, replace the SRS-ECU with a new one.***
- ***Never use an ohmmeter on or near the SRS-ECU, and use only the special test equipment described here P.52B-350.***

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.



Removal steps

<<A>>
1. Negative (-) battery cable connection
   - Floor console front bracket (Refer to GROUP 52A, Front Floor Console Assembly P.52A-8).
   - Instrument under cover (Refer to GROUP 52A, Instrument Lower Panel P.52A-7).
   - Rear heater duct A (Refer to GROUP 55A, Ducts P.55A-136).
2. SRS-ECU mounting bolt (ground bolt)
3. SRS-ECU mounting bolt

<<B>>
4. SRS-ECU

Installation steps

>>A<<
4. SRS-ECU
3. SRS-ECU mounting bolt

>>B<<
2. SRS-ECU mounting bolt (ground bolt)
   - Floor console front bracket (Refer to GROUP 52A, Front Floor Console Assembly P.52A-8).
   - Instrument under cover (Refer to GROUP 52A, Instrument Lower Panel P.52A-7).
   - Rear heater duct A (Refer to GROUP 55A, Ducts P.55A-136).
1. Negative (-) battery cable connection

>>C<<
- Post-installation inspection

TSB Revision

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (−)BATTERY CABLE DISCONNECTION

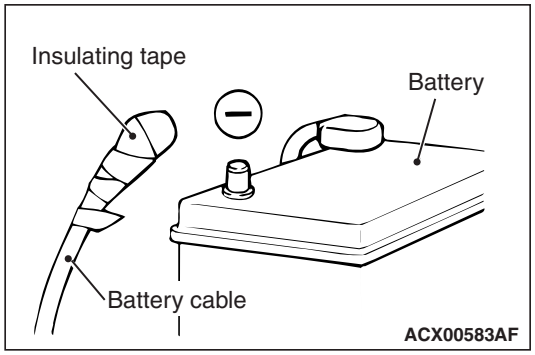
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-24).

⚠ ***WARNING***

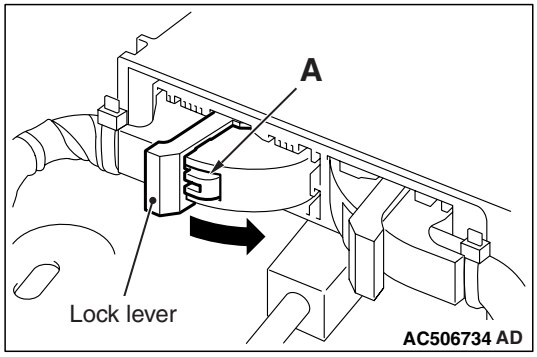
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (−) battery cable from the battery and tape the terminal to prevent accidental connection and deployment.



<<B>> SRS-ECU REMOVAL

While pushing the part "A" indicated in the figure of the harness side connector, turn the lock lever to the direction of the arrow to release the lock lever.



INSTALLATION SERVICE POINTS

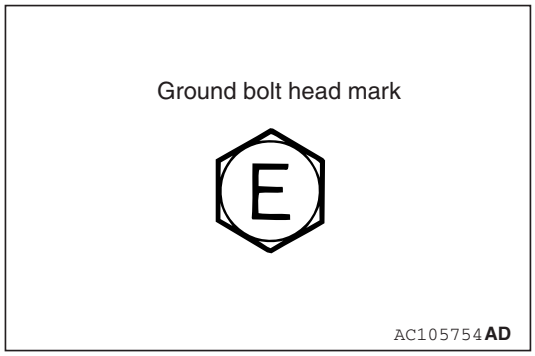
>>A << SRS-ECU INSTALLATION

⚠ ***WARNING***

The SRS may not activate if the SRS-ECU is not installed properly, which could result in serious injury or death to the vehicle's driver or front passenger.

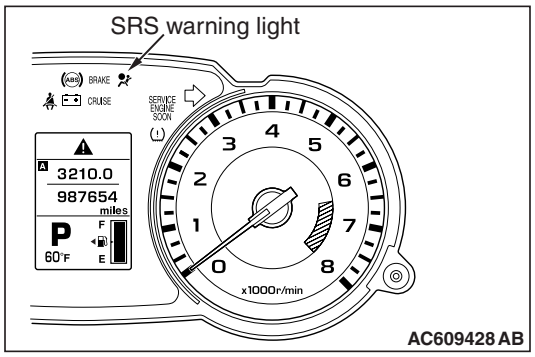
>>B<< SRS-ECU MOUNTING BOLT (GROUND BOLT) INSTALLATION

Check the head mark "E" and install the ground bolt.



>>C<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (−) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and then go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-31.



INSPECTION

M1524002200670

⚠ *WARNING*

If a dent, crack, deformation or rust is discovered, replace the SRS-ECU with a new one.

- Check the SRS-ECU and brackets for dents, cracks or deformation.
- Check the SRS-ECU connector for damage, and the terminals for deformation.

NOTE: Refer to P.52B-31 for inspection of SRS-ECU for other than physical damage.

AIR BAG MODULE(S) AND CLOCK SPRING

REMOVAL AND INSTALLATION

M1524002400942

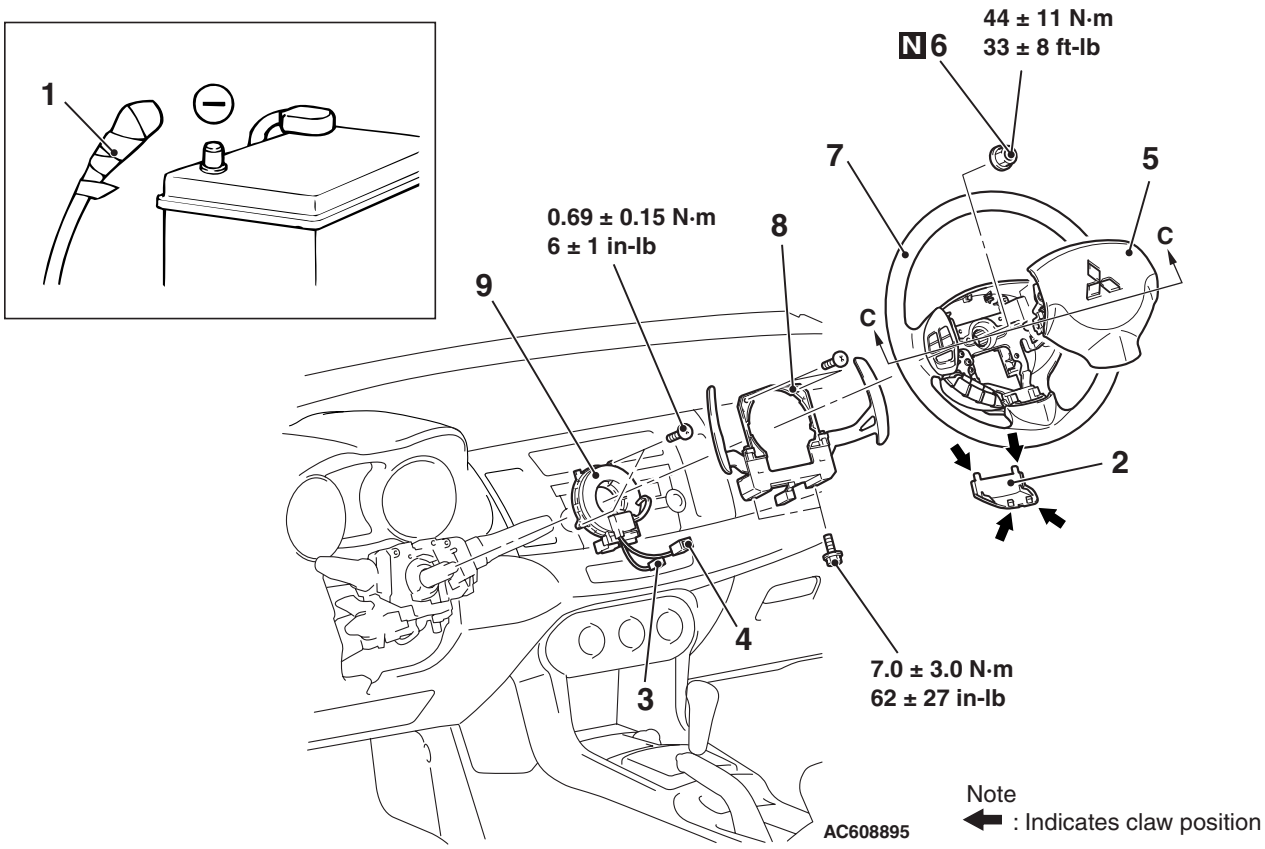
⚠ ***WARNING***

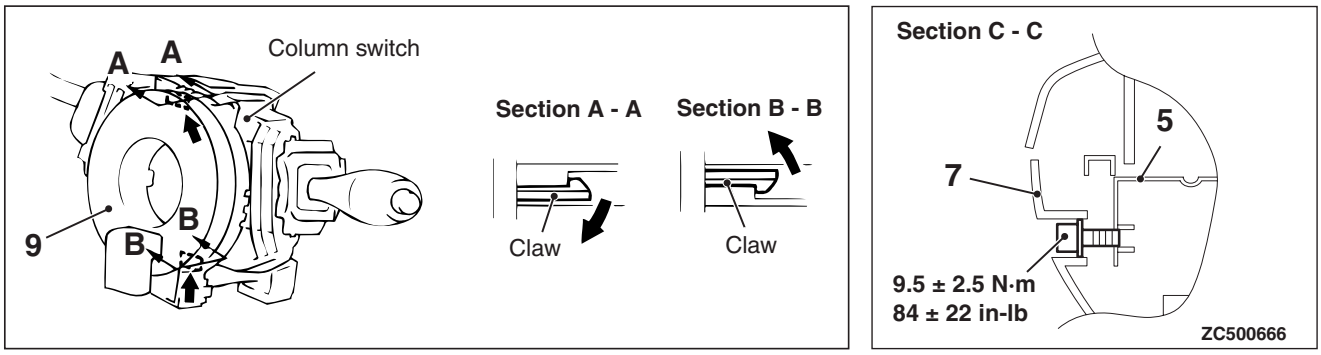
- ***Never attempt to disassemble or repair the air bag modules or clock spring. If faulty, replace it.***
- ***Do not drop the air bag modules or clock spring or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.***
- ***The air bag modules should be stored on a flat surface with the pad cover facing upward. Do not place anything on top of it.***
- ***Do not expose the air bag modules to temperatures over 93°C (200°F).***
- ***After deployment of an air bag, replace the clock spring with a new one.***
- ***Wear gloves and safety glasses when handling air bags that have already deployed.***
- ***An undeployed air bag module should only be disposed of in accordance with the procedures (Refer to P.52B-393).***
- ***When removing and installing the front passenger seat, be sure to carry out accuracy check of the occupant classification sensor after the seat has been installed in the vehicle (On-Vehicle Service P.52B-358).***

SIDE-AIRBAG MODULE

For removal and installation of the front seatback assembly with side-airbag module, refer to GROUP 52A, Front Seat P.52A-21.

DRIVER'S AIR BAG MODULE AND CLOCK SPRING





Driver's air bag module removal steps

<<A>> 1. Negative (-) battery cable connection
<<B>> 2. Cover
3. Horn connector connection
<<C>> 4. Driver's air bag module connector connection
<<D>> 5. Driver's air bag module

Driver's air bag module installation steps

>>A<< • Pre-installation inspection
>>C<< 5. Driver's air bag module
>>D<< 4. Driver's air bag module connector connection
>>D<< 3. Horn connector connection

Driver's air bag module installation steps (Continued)

2. Cover
1. Negative (-) battery cable connection
>>E<< • Post-installation inspection

Clock spring removal steps

<<A>> 1. Negative (-) battery cable connection
<<B>> 2. Cover
3. Horn connector connection
<<C>> 4. Driver's air bag module connector connection
<<D>> 5. Driver's air bag module
6. Self-locking nut
<<E>> 7. Steering wheel assembly

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Clock spring removal steps

- Lower, upper column cover (Refer to Group 37 Steering Column shaft assembly P.37-25).

8. Paddle shift assembly <vehicles with paddle shift>

<<F>> 9. Clock spring

Clock spring installation steps

>>A<< Pre-installation inspection

>>B<< 9. Clock spring

- Lower, upper column cover

8. Paddle shift assembly <vehicles with paddle shift>

>>C<< 7. Steering wheel assembly

6. Self-locking nut

>>C<< 5. Driver's air bag module

Clock spring installation steps

>>D<< 4. Driver's air bag module connector connection

>>D<< 3. Horn connector connection

2. Cover

1. Negative (−) battery cable connection

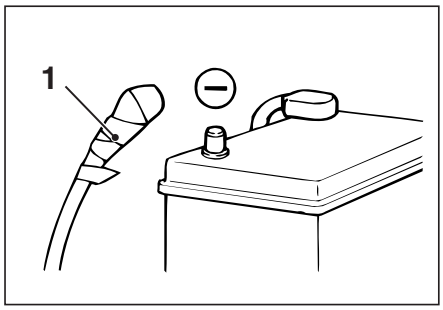
>>E<<

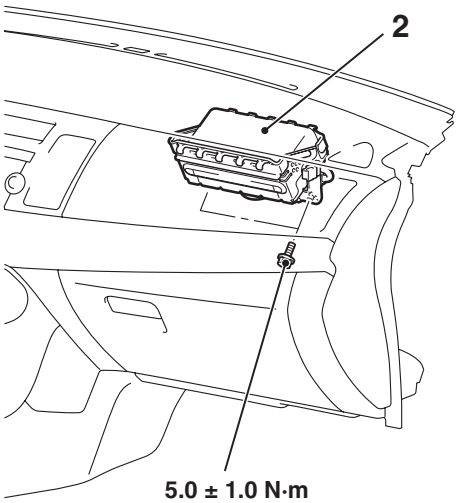
- Post-installation inspection

Required Special Tools:

- MB990803: Steering Wheel Puller
- MB991958 Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824:Vehicle Communication Interface(V.C.I.)
  - MB991827:M.U.T.-III USB Cable
  - MB991910:M.U.T.-III Main Harness A
- MB992006: Extra Fine Probe

PASSENGER'S (FRONT) AIR BAG MODULE





AC608896AB

Passenger's (front) air bag module removal steps

<<A>> 1. Negative (−) battery cable connection

<<G>>

- Passenger's (front) air bag module connector
- Side defroster duct (Refer to GROUP 52A, Instrument Panel Assembly P.52A-2).

<<H>> 2. Passenger's (front) air bag module

Passenger's (front) air bag module installation steps

>>A<<

- Pre-installation inspection

2. Passenger's (front) air bag module

- Side defroster duct (Refer to GROUP 52A, Instrument Panel Assembly P.52A-2).
- Passenger's (front) air bag module connector
- Negative (−) battery connection

>>E<<

- Post-installation inspection

Required Special Tools:

- MB991958 Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824: Vehicle Communication Interface(V.C.I.)
  - MB991827 M.U.T.-III USB Cable
  - MB991910 M.U.T.-III Main Harness A

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REMOVAL SERVICE POINTS

<<A>> NEGATIVE (−) BATTERY CABLE DISCONNECTION

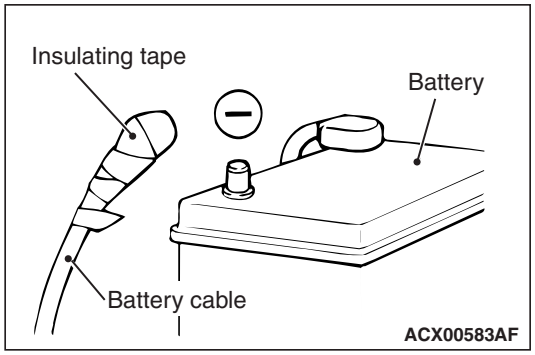
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-24).

⚠ ***WARNING***

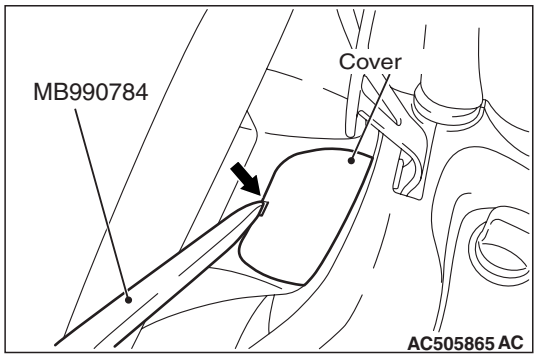
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (−) battery cable from the battery and tape the terminal to prevent accidental connection and air bag(s) deployment.



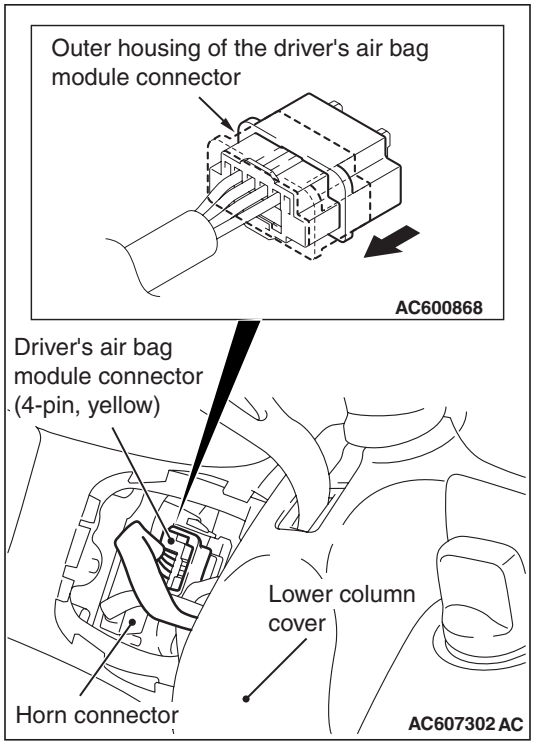
<<B>> COVER REMOVAL

Insert Special tool MB990784 into the notch shown in the figure, and remove the cover.



<<C>> DRIVER'S AIR BAG MODULE CONNECTOR REMOVAL

Slide the outer housing of the driver's air bag module connector in the arrow direction shown, and disconnect the connector.

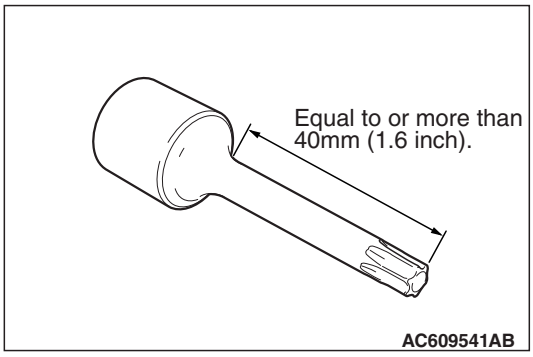

Outer housing of the driver's air bag module connector
AC600868
Driver's air bag module connector (4-pin, yellow)
Lower column cover
Horn connector
AC607302 AC

<<D>> AIR BAG MODULE ASSEMBLY REMOVAL

⚠ *WARNING*

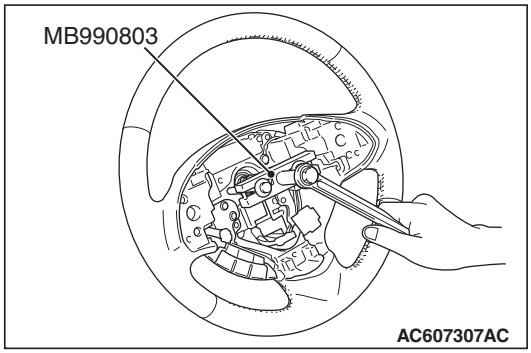
- ***The air bag module must not be measured with such equipment as an ohmmeter.***
- ***The air bag module must not be disassembled.***
- ***The removed air bag module should be stored in a clean, dry place with the deployment surface facing up.***

Using t-type long torx wrench (T30), a torx screw is loosened completely and removed.



<<E>> STEERING WHEEL ASSEMBLY REMOVAL

Use special tool MB990803 to remove the steering wheel.



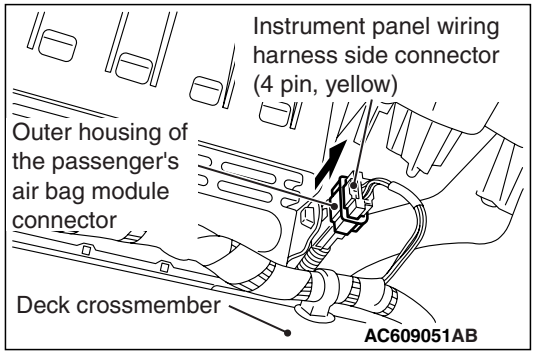
<<F>> CLOCK SPRING REMOVAL

⚠ ***WARNING***

The removed clock spring should be stored in a clean, dry place.

<<G>> PASSENGER'S (FRONT) AIR BAG MODULE CONNECTOR REMOVAL

1. Remove the grove box cover.(Refer to GROUP 52A, Glove Box P.52A-5)
2. Slide the outer housing of the passenger's (front) air bag module connector in the arrow direction shown, and disconnect the connector.

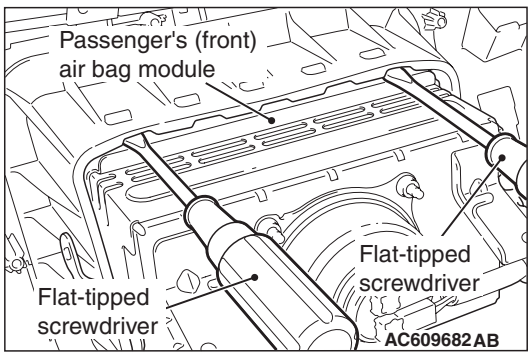

Instrument panel wiring harness side connector (4 pin, yellow)
Outer housing of the passenger's air bag module connector
Deck crossmember
AC609051AB

<<H>> PASSENGER'S (FRONT) AIR BAG MODULE REMOVAL

⚠ ***WARNING***

- ***The air bag module must not be measured with such equipment as an ohmmeter.***
- ***The air bag module must not be disassembled.***
- ***The removed air bag module should be stored in a clean, dry place with the deployment surface facing up.***

Insert a flat-tipped screwdriver or similar tool to the location shown in the figure. After disengaging the tabs, remove the passenger's (front) air bag module.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ WARNING

Dispose of air bag modules only according to the specified procedure (Refer to P.52B-393).

1. When installing the new air bag modules and clock spring, refer to “INSPECTION” (P.52B-375).
2. Connect the negative (−) battery cable.

⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

3. Connect scan tool MB991958 to the data link connector.
4. Turn the ignition switch to the “ON” position.
5. Check DTCs using scan tool MB991958 to ensure entire SRS operates properly.
   At this time, check that no DTC except B1B02, B1B06, B1B0A and B1B0E are set.

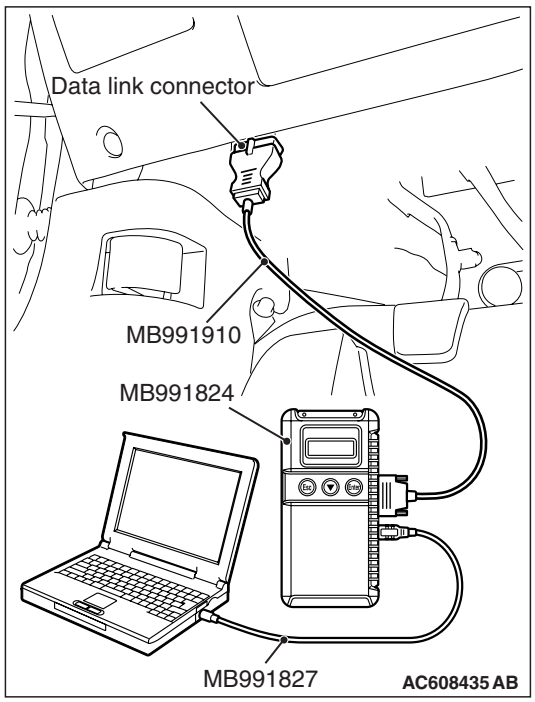
⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-24).

⚠ WARNING

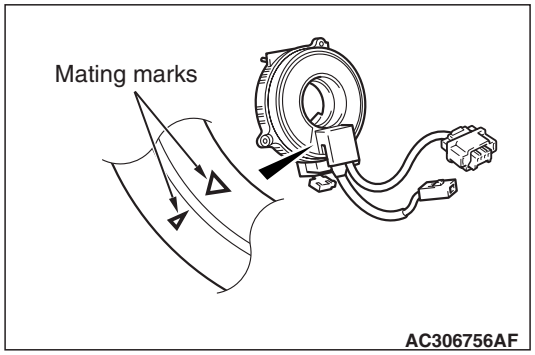
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative (−) battery cable and tape the terminal to prevent accidental connection and air bags deployment.



>>B<< CLOCK SPRING INSTALLATION

1. Check that the front wheels are at the straight-ahead position.



⚠ CAUTION

- **If the center of the clock spring is not correctly aligned, the steering wheel may not be turned fully or the cable inside the clock spring may be broken, causing the SRS air bag to be inoperative or operated incorrectly.**
- **When aligning the clock spring neutral position mark, perform with the clock spring independently. If performed with the steering wheel sensor installed, the steering wheel sensor may be damaged.**

2. Align the mating marks of the clock spring.
   Alignment of mating marks
   (1) Turn the clock spring clockwise fully.
   (2) Turn the clock spring counterclockwise approximately three and 3/4 turns to align the mating marks.
   (3) Install the clock spring to the column switch.

>>C<< STEERING WHEEL ASSEMBLY/DRIVER'S AIR BAG MODULE ASSEMBLY INSTALLATION

⚠ CAUTION

When installing the steering wheel and air bag module, ensure that the harness of the clock spring does not become caught or tangled.

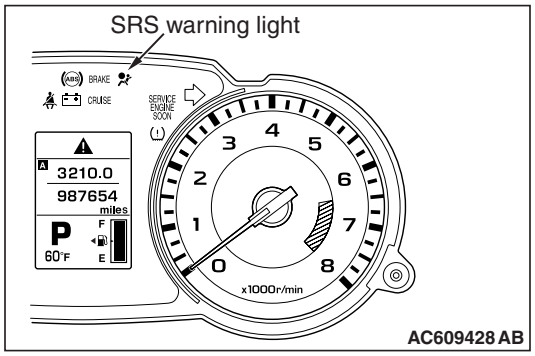
1. Before installing the steering wheel and air bag module, turn the vehicle's front wheels to the straight-ahead position and align the mating marks of the clock spring.
2. After securing the steering wheel, turn the steering wheel all the way in both directions to confirm that the steering wheel rotation is normal.

>>D<< DRIVER'S AIR BAG MODULE CONNECTOR/HORN CONNECTOR CONNECTION

Connect the connector securely and route the harnesses not to lie off the cover hole.

>>E<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (–) battery cable.
2. Turn the ignition switch to "ON" position.



3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-31.

INSPECTION

M1524002500756

AIR BAG MODULE CHECK

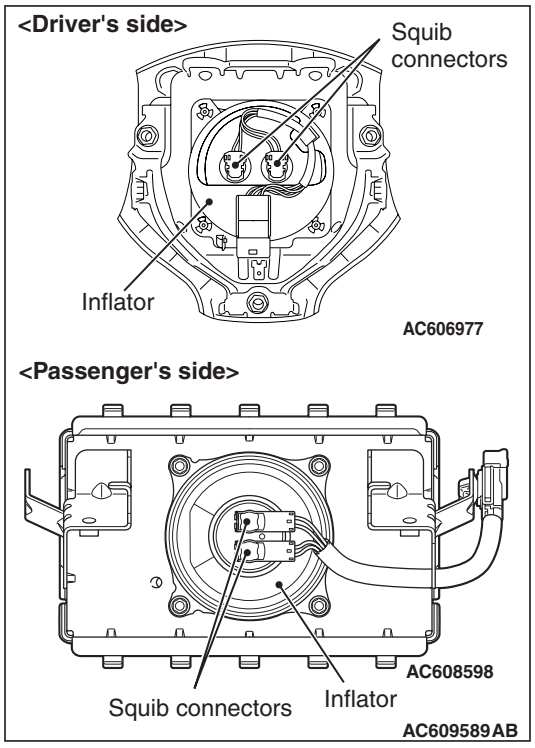
⚠ DANGER

Never attempt to measure the circuit resistance of the air bag modules (squib), even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result, and possible serious personal injury.

⚠ WARNING

If any component damage is found during the following inspection, replace the air bag module with a new one. Dispose of the old one according to the specified procedure (Refer to P.52B-393).

1. Check the pad cover for dents, cracks or deformation.
2. Check the connectors for damage, the terminals for deformation, and the harness for binding.
3. Check the air bag inflator case for dents, cracks or deformation.
4. Install the air bag module (driver's side) to the steering wheel and check fit and alignment with the steering wheel.
5. Install the air bag module (front passenger's side) to the instrument panel and front deck crossmember and check fit and alignment.



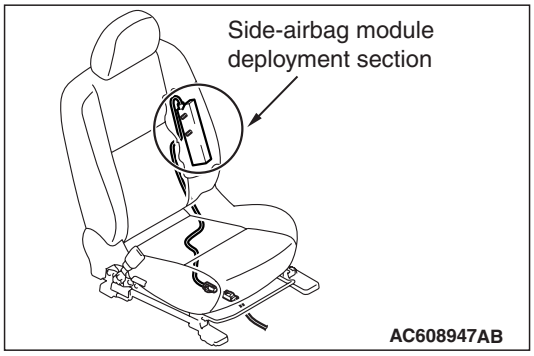
FRONT SEATBACK ASSEMBLY WITH SIDE-AIRBAG MODULE CHECK

⚠ ***DANGER***

Never attempt to measure the circuit resistance of the air bag module (squib), even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result, and possible serious personal injury.

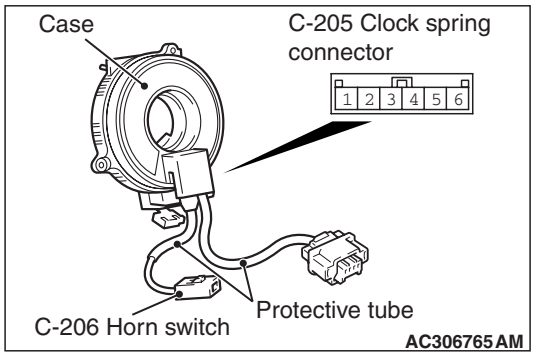
⚠ ***WARNING***

If any improper part is found during the following inspection, replace the front seatback assembly with a new one. Dispose of the old one according to the specified procedure (Refer to P.52B-393).



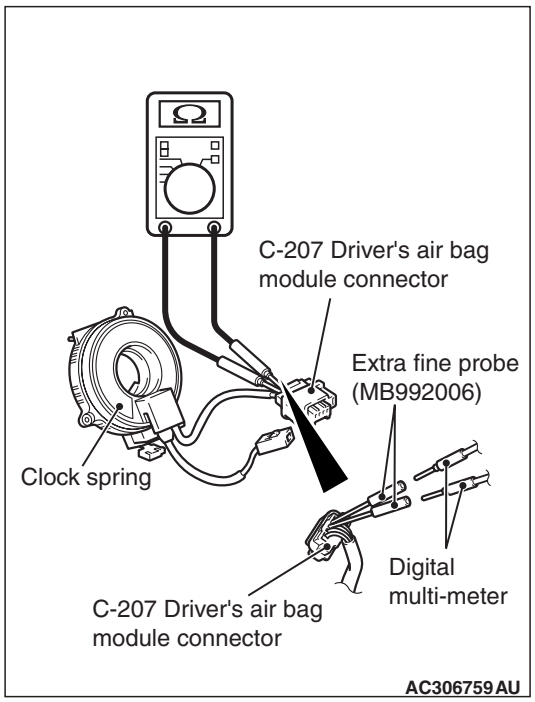
1. Check the air bag module deployment section for dents or deformation.
2. Check the connector for damage, the terminals for deformation, and the harness for binding.

CLOCK SPRING CHECK



If any malfunction is found in the following inspections, replace the clock spring with a new one.

1. Check the connectors and protective tube for damage, and the terminals for deformation.
2. Visually check the case for damage.
3. Check to see that there is a charge (continuity) between the C-205 clock spring connector terminal 1 and C-206 horn switch.



⚠ CAUTION
Do not directly insert a probe, etc. into the terminal from the front of the connector.

4. Insert the special tool MB992006 from behind the airbag module connector of the C-207 driver's side.
5. Connect the circuit tester to the special tool as shown in the figure, and check the continuity among terminal No. 1 –2 and No. 3 –4.

KNEE AIR BAG MODULE

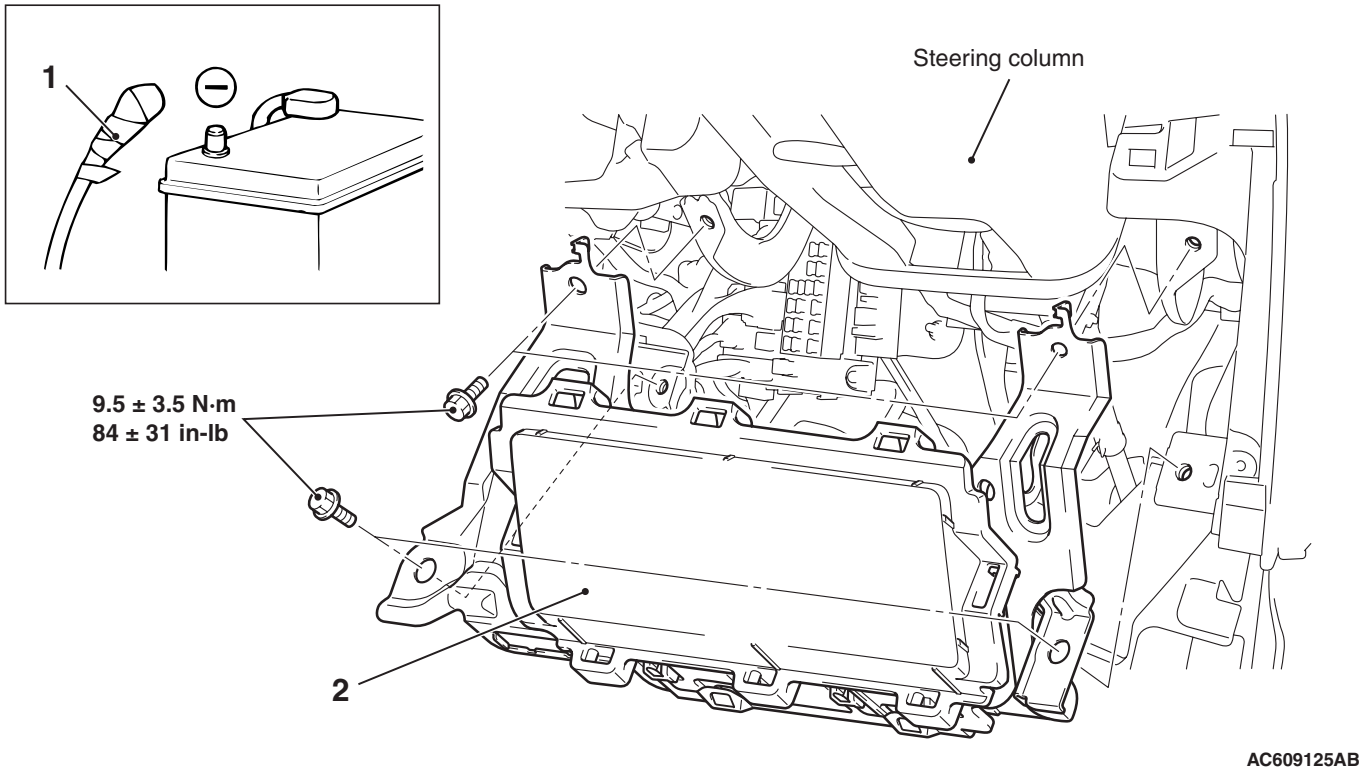
REMOVAL AND INSTALLATION

M1524044000018

⚠ WARNING

- ***Never attempt to disassemble or repair the knee air bag modules. If faulty, replace it.***
- ***Do not drop the knee air bag modules or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.***
- ***Do not expose the knee air bag modules to temperatures over 93°C (200°F).***
- ***Wear gloves and safety glasses when handling air bags that have already deployed.***
- ***An undeployed knee air bag module should only be disposed of in accordance with the procedures (Refer to P.52B-393).***
- ***When removing and installing the front passenger seat, be sure to carry out accuracy check occupant classification sensor after the seat has been installed in the vehicle (On-vehicle Service P.52B-358).***

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.



Removal steps

<<A>> 1. Negative (-) battery cable connection
- Instrument panel cover lower (Refer to GROUP 52A, Instrument Lower Panel P.52A-7).

<<B>> 2. Knee air bag module

Installation steps

>>A<< • Pre-installation inspection

>>B<< 2. Knee air bag module
- Instrument panel cover lower (Refer to GROUP 52A, Instrument Lower Panel P.52A-7).

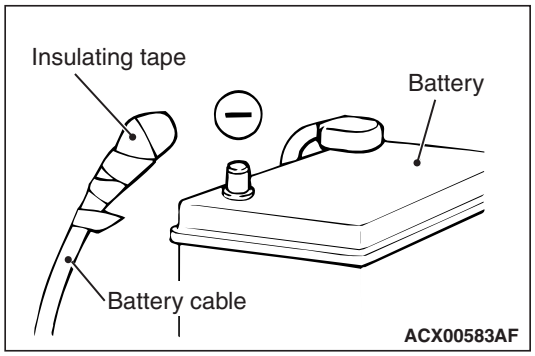
1. Negative (-) battery cable connection

>>C<< • Post-installation inspection

TSB Revision

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (−) BATTERY CABLE DISCONNECTION



⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-24).

⚠ ***WARNING***

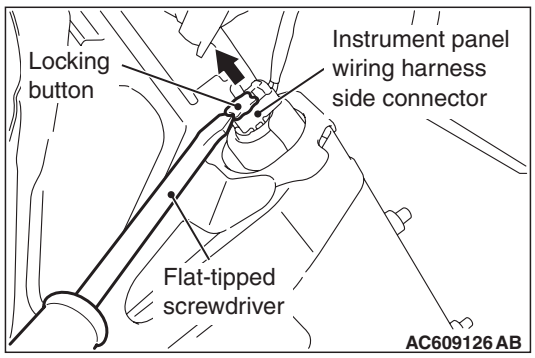
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (−) battery cable from the battery and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.

<<B>> KNEE AIR BAG MODULE REMOVAL

⚠ ***WARNING***

- ***The air bag module must not be measured with such equipment as an ohmmeter.***
- ***The air bag module must not be disassembled.***
- ***The removed air bag module should be stored in a clean, dry place with the deployment surface facing up.***



After removing the knee air bag module, use the flat-tipped screwdriver, and pull out the lock button of the harness-side connector in the arrow direction to release lock.

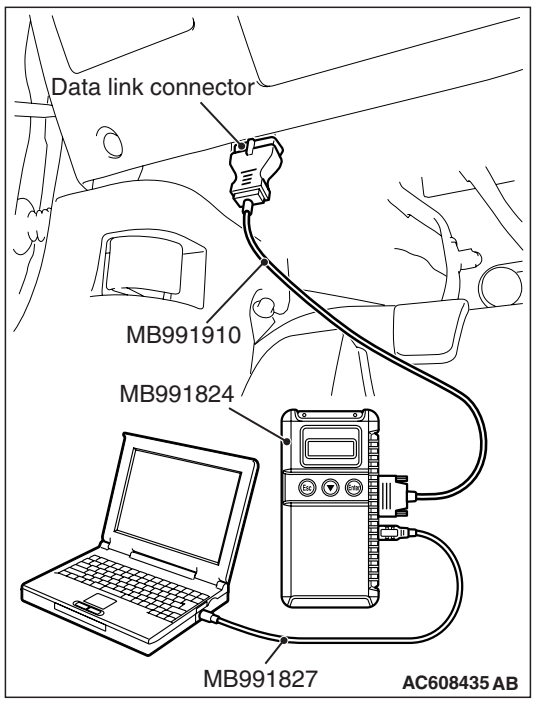
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ ***WARNING***

Dispose of knee air bag module only according to the specified procedure (Refer to P.52B-393).

1. When installing the new knee air bag module, refer to “INSPECTION” (P.52B-381).
2. Connect the negative (−) battery cable.



⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

3. Connect scan tool MB991958 to the data link connector.
4. Turn the ignition switch to the “ON” position.
5. Check DTCs using scan tool MB991958 to ensure entire SRS operates properly.
   At this time, check that no DTC except B1B12 is set.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-24).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative (−) battery cable and tape the terminal to prevent accidental connection and air bag deployment.

>>B<< KNEE AIR BAG MODULE INSTALLATION

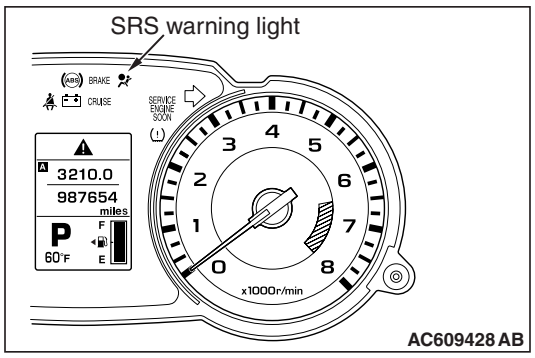
⚠ CAUTION

- **Take care not to bend or distort the knee air bag when installing it.**
- **Take care that the surrounding components do not trap the air bag.**
- **Take care that the front pillar trim clips or other parts do not interfere with the strap.**

Connect the knee air bag module connector, then securely lock the locking button of the harness-side connector.

>>C<< POST-INSTALLATION INSPECTION

1. Connect the negative (−) battery cable.
2. Turn the ignition switch to the “ON” position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-31.



INSPECTION

M1524044100015

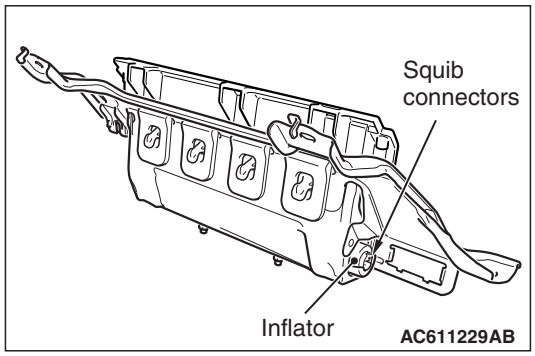
KNEE AIR BAG MODULE CHECK

⚠ ***DANGER***

Never attempt to measure the circuit resistance of the air bag modules (squib), even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result, and possible serious personal injury.

⚠ ***WARNING***

If any component damage is found during the following inspection, replace the air bag module with a new one. Dispose of the old one according to the specified procedure (Refer to P.52B-393).



1. Check the inflator surface for cracks, dents or deformations.
2. Check the air bag for breakage.
3. Check the connector for damage, the terminal for deformation and the harness for binding.

SIDE IMPACT SENSOR

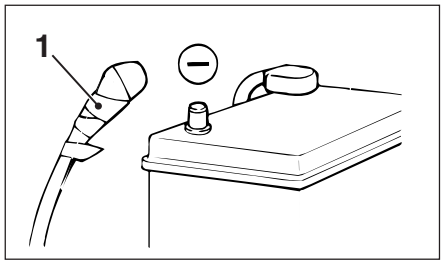
REMOVAL AND INSTALLATION

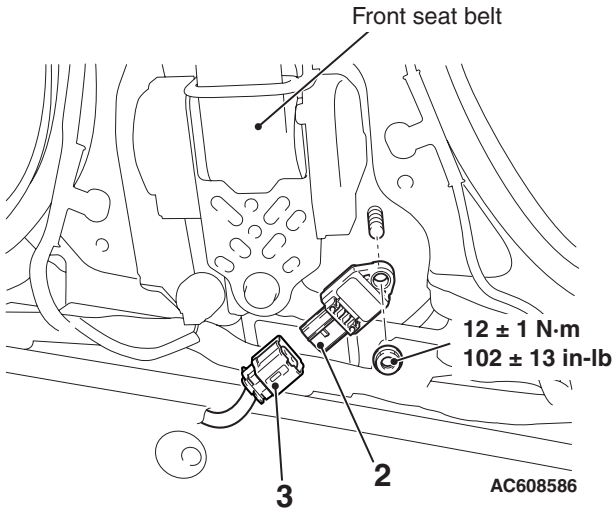
M1524004600867

⚠ WARNING

- ***Never attempt to disassemble or repair the side impact sensor. If faulty, replace it.***
- ***Do not drop or subject the side impact sensor to impact or vibration. Replace the side impact sensor, if dents, cracking, deformation, or rust are present.***
- ***Replace the side impact sensor after the side and curtain air bag has deployed.***

Pre-removal Operation
- Turn the ignition key to the "LOCK" (OFF) position.





AC609672 AB

Side impact sensor removal steps

<<A>>
1. Negative (−) battery cable connection
   - Lower center pillar trim (Refer to GROUP 52A, Trim P.52A-10).
2. Side impact sensor

<<B>>
3. Side impact sensor connector connection

Side impact sensor installation steps

>>A<<
- Pre-installation inspection

3. Side impact sensor connector connection

>>B<<
2. Side impact sensor
   - Lower center pillar trim (Refer to GROUP 52A, Trim P.52A-10).
1. Negative (−) battery cable connection

>>C<<
- Post-installation inspection

NOTE: The illustration above shows the side impact sensor (LH). The position of the side impact sensor (RH) is symmetrical to this.

TSB Revision

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (−) BATTERY CABLE DISCONNECTION

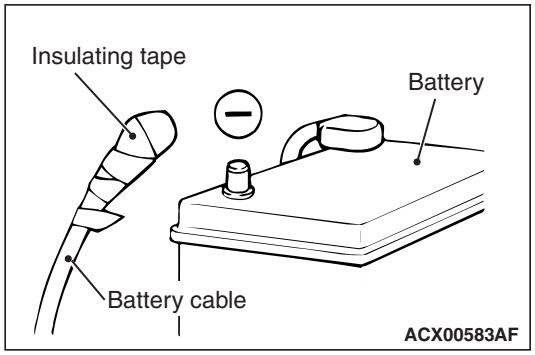
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-24).

⚠ ***WARNING***

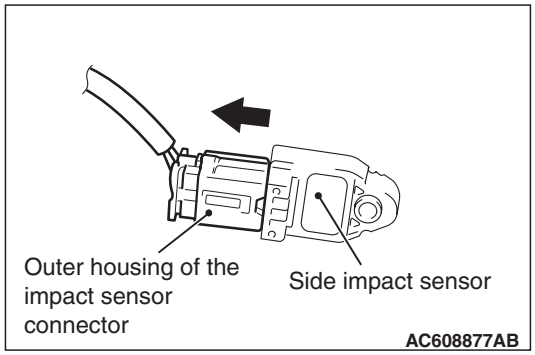
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (−) battery cable from the battery and tape the terminal to prevent accidental connection and air bag deployment.



<<B>> SIDE IMPACT SENSOR CONNECTOR REMOVAL

Slide the outer housing of the impact sensor connector in the arrow direction shown, and disconnect the connector.



INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

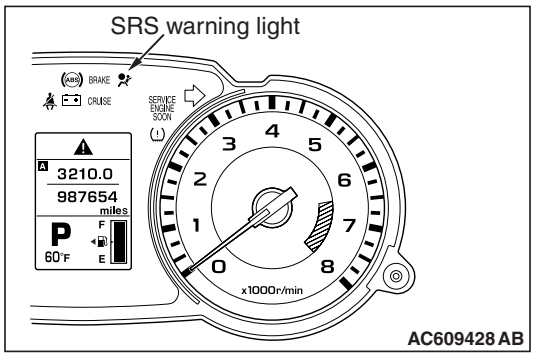
Check the side impact sensor for dents, breakage and bending and measure the resistance between the terminals, even when installing a new side impact sensor.

>>B <<SIDE IMPACT SENSOR INSTALLATION

⚠ ***WARNING***

If the side impact sensor is not installed securely and correctly, the side-airbag may not operate normally.

Securely connect the connector.



>>C<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (−) battery cable.
2. Turn the ignition switch to the "ON" position.
3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-31.

INSPECTION

M1524004700671

⚠ WARNING

If a dent, crack, deformation or rust is detected, replace with a new sensor.

NOTE: For checking of the side impact sensor other than described below, refer to the section concerning SRS diagnosis (Refer to P.52B-31).

1. Check the side impact sensor and bracket for dents, cracks or deformation.
2. Check the connector for damage, and terminals for deformation.
3. Check that there is no bending or corrosion in the center pillar.

CURTAIN AIR BAG MODULES

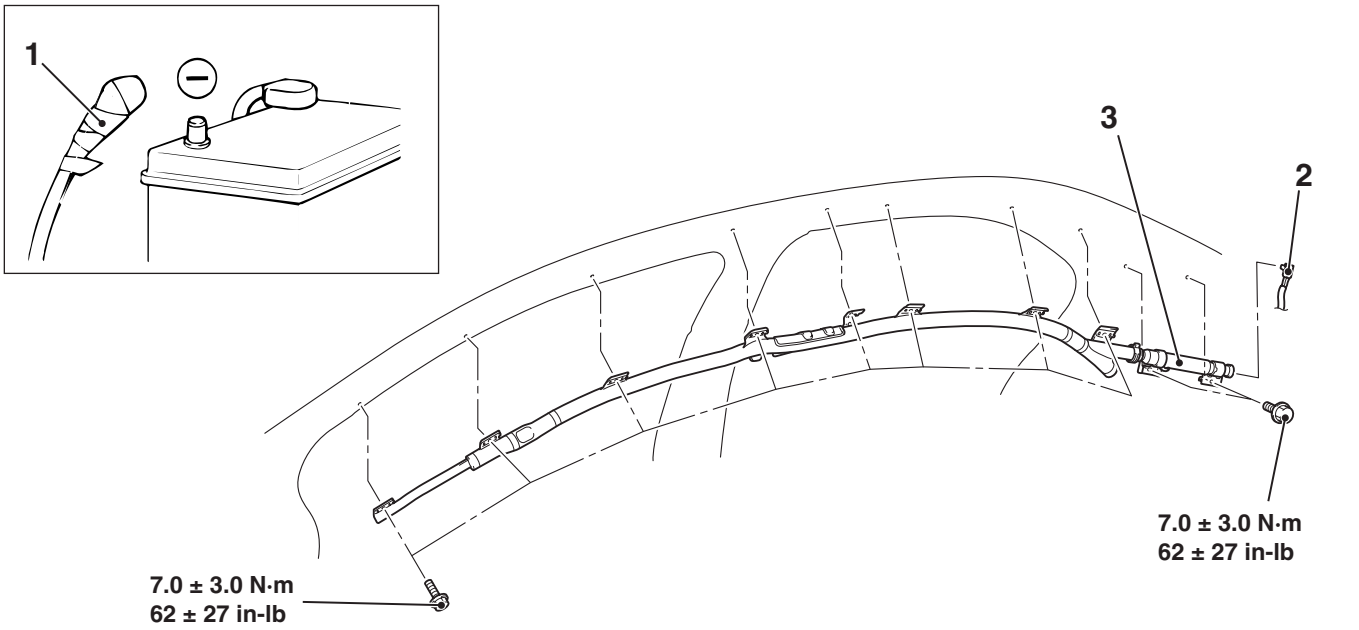
REMOVAL AND INSTALLATION

M1524013500192

⚠ WARNING

- ***Never attempt to disassemble or repair the curtain air bag modules. If faulty, replace it.***
- ***Do not drop the curtain air bag modules or allow contact with water, grease or oil. Replace it if a dent, crack, deformation or rust is detected.***
- ***Do not expose the curtain air bag modules to temperatures over 93°C (200°F).***
- ***Wear gloves and safety glasses when handling air bags that have already deployed.***
- ***An undeployed curtain air bag module should only be disposed of in accordance with the procedures (Refer to P.52B-393).***
- ***When removing and installing the front passenger seat, be sure to carry out accuracy check occupant classification sensor after the seat has been installed in the vehicle (On-vehicle Service P.52B-358).***

Pre-removal Operation
- Turn the ignition switch to the "LOCK" (OFF) position.



AC608584 AB

Removal steps

<<A>> 1. Negative (−) battery cable connection
- Headlining (Refer to GROUP 52A, Headlining P.52A-15).

<<B>> 2. Curtain air bag module connector connection

<<C>> 3. Curtain air bag module

Installation steps

>>A<< • Pre-installation inspection

>>B<< 3. Curtain air bag module

>>C<< 2. Curtain air bag module connector connection
- Headlining (Refer to GROUP 52A, Headlining P.52A-15).

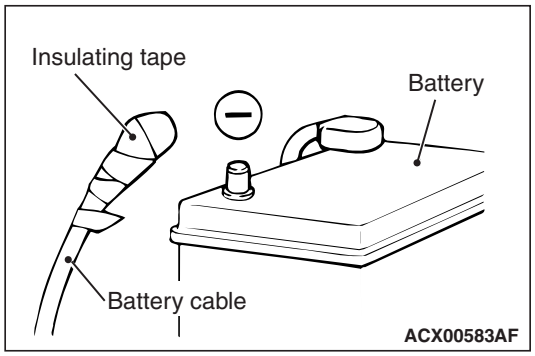
1. Negative (−) battery cable connection

>>D<< • Post-installation inspection

TSB Revision

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (−) BATTERY CABLE DISCONNECTION



⚠ ***DANGER***

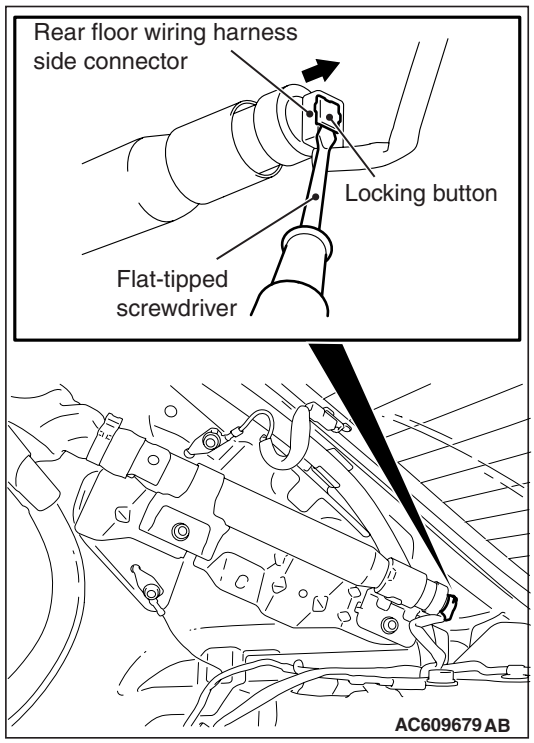
Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-24).

⚠ ***WARNING***

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (−) battery cable from the battery and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.

<<B>> CURTAIN AIR BAG MODULE CONNECTOR REMOVAL



Use a flat-tipped screwdriver to unlock the locking button of the rear floor wiring harness side connector. After releasing the lock, disconnect the connector.

<<C>> CURTAIN AIR BAG MODULE REMOVAL

⚠ ***WARNING***

- ***The air bag module must not be measured with such equipment as an ohmmeter.***
- ***The air bag module must not be disassembled.***
- ***The removed air bag module should be stored in a clean, dry place with the deployment surface facing up.***

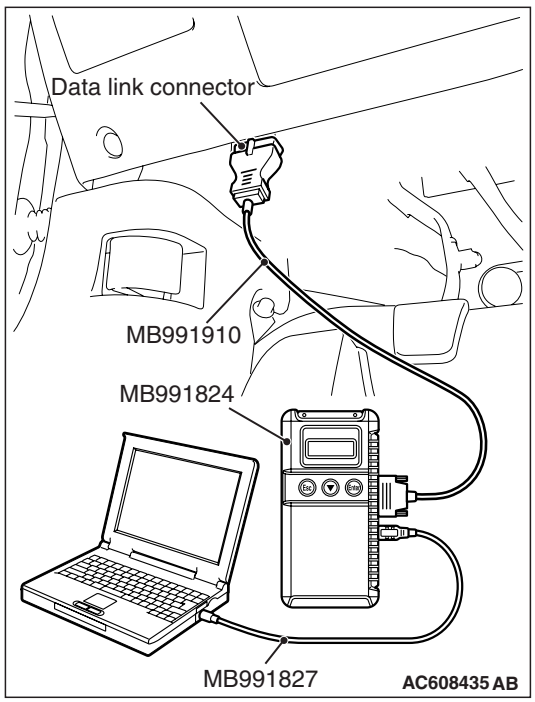
INSTALLATION SERVICE POINTS

>>A<< PRE-INSTALLATION INSPECTION

⚠ ***WARNING***

Dispose of curtain air bag module only according to the specified procedure (Refer to P.52B-24).

1. When installing the new curtain air bag module, refer to “INSPECTION” (P.52B-388).
2. Connect the negative (−) battery cable.



⚠ CAUTION

To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

3. Connect scan tool MB991958 to the data link connector.
4. Turn the ignition switch to the “ON” position.
5. Check DTCs using scan tool MB991958 to ensure entire SRS operates properly.
   At this time, check that no DTC except B1B1A and B1B2C are set.

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-24).

⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative (–) battery cable and tape the terminal to prevent accidental connection and air bag deployment operation.

>>B<< CURTAIN AIR BAG MODULE INSTALLATION

⚠ CAUTION

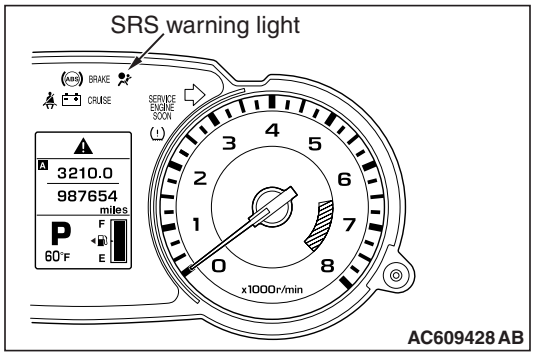
- **Take care not to bend or distort the curtain air bag when installing it.**
- **Take care that the surrounding components do not trap the air bag.**
- **Take care that the front pillar trim clips or other parts do not interfere with the strap.**

>>C<< CURTAIN AIR BAG MODULE CONNECTOR CONNECTION

Connect the curtain air bag module connector, then securely lock the locking button of the harness-side connector.

>>D<< POST-INSTALLATION INSPECTION

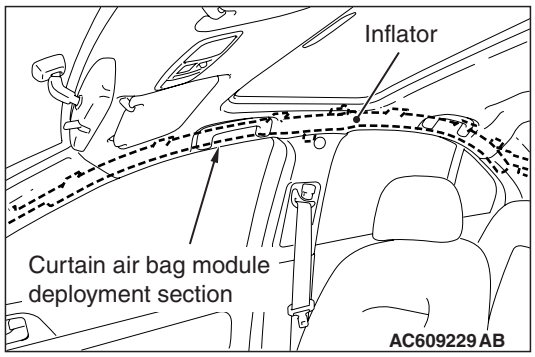
1. Connect the negative (–) battery cable.
2. Turn the ignition switch to the “ON” position.



3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-31.

INSPECTION

M1524013600177



CURTAIN AIR BAG MODULE CHECK

⚠ DANGER

Never attempt to measure the circuit resistance of the air bag modules (squib), even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental air bag deployment will result, and possible serious personal injury.

⚠ WARNING

If any component damage is found during the following inspection, replace the air bag module with a new one. Dispose of the old one according to the specified procedure (Refer to P.52B-393).

1. Check that the curtain air bag deployment part of the headlining is normal.
2. Check the inflator surface for cracks, dents or deformations.
3. Check the air bag for breakage.
4. Check the connector for damage, the terminal for deformation and the harness for binding.

SEAT BELTS WITH PRE-TENSIONER

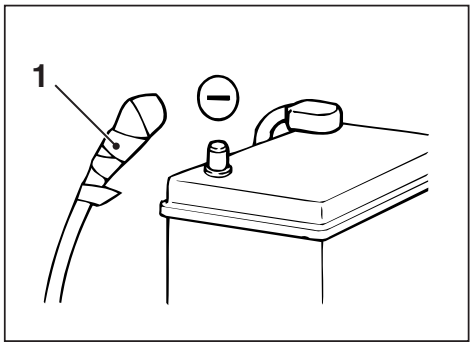
REMOVAL AND INSTALLATION

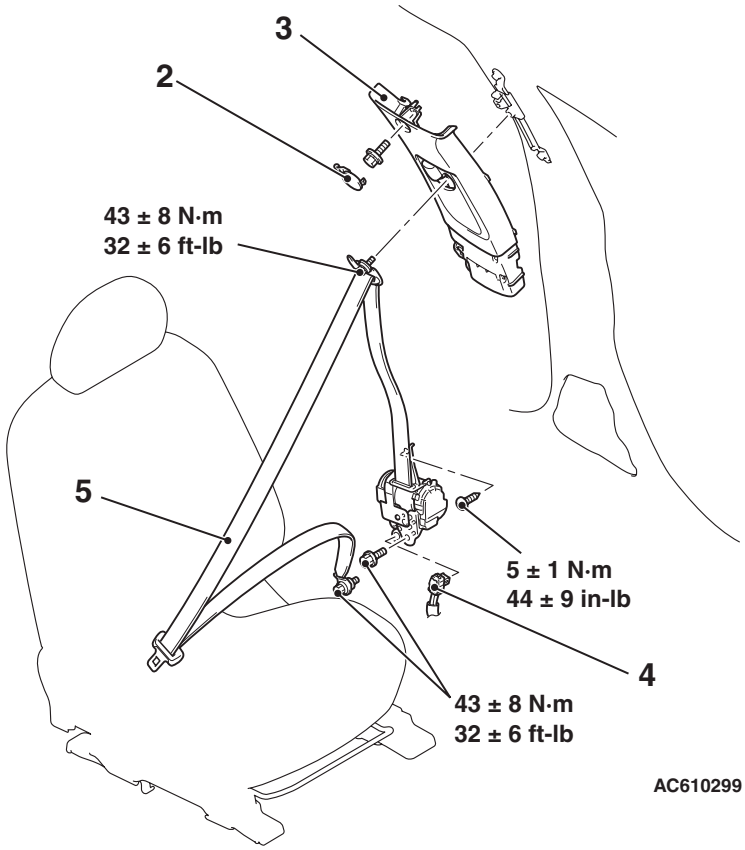
M1524004100970

⚠ WARNING

- ***Never attempt to disassemble or repair the seat belt pre-tensioner. If faulty, replace it.***
- ***Be extremely careful when handling the seat with pre-tensioner. Do not subject it to shocks, drop it, bring it close to strong magnets or allow contact with water, grease or oil. Always replace it with a new part if any dents, cracks or deformation is found.***
- ***Do not place anything on the seat belt pre-tensioner.***
- ***Do not expose the seat belt pre-tensioner to temperatures over 90°C (194°F).***
- ***After operating the seat belt pre-tensioner, replace the seat belt pre-tensioner with a new part.***
- ***Gloves and protective goggles must be worn when handling a seat belt pre-tensioner once it has been used.***
- ***If disposing of a seat belt with pre-tensioner which has not yet been operated, its seat belt pre-tensioner must be operated first before disposal (Refer to P.52B-393).***
- ***When removing and installing the front passenger seat belt, be sure to carry out accuracy check of the occupant classification sensor after the seat has been installed in the vehicle (On-Vehicle Service P.52B-358).***

Pre-removal Operation
- Turn the ignition key to the "LOCK" (OFF) position.





AC609681AB

TSB Revision

Removal steps

<<A>> 1. Negative (-) battery cable connection
2. Center pillar trim cup (Refer to GROUP 52A, Trims P.52A-10).
- Lower center pillar trim (Refer to GROUP 52A, Trims P.52A-10).

3. Upper center pillar trim (Refer to GROUP 52A, Trims P.52A-10).

<<B>> 4. Seat belt with pre-tensioner connector connection

<<C>> 5. Seat belt with pre-tensioner

Installation steps

>>A<< - Pre-installation inspection

5. Seat belt with pre-tensioner

>>B<< 4. Seat belt pre-tensioner connector connection

3. Upper center pillar trim (Refer to GROUP 52A, Trims P.52A-10).
- Lower center pillar trim (Refer to GROUP 52A, Trims P.52A-10).

2. Center pillar trim cup (Refer to GROUP 52A, Trims P.52A-10).
1. Negative (-) battery cable connection

>>C<< - Post-installation inspection

Required Special Tools:

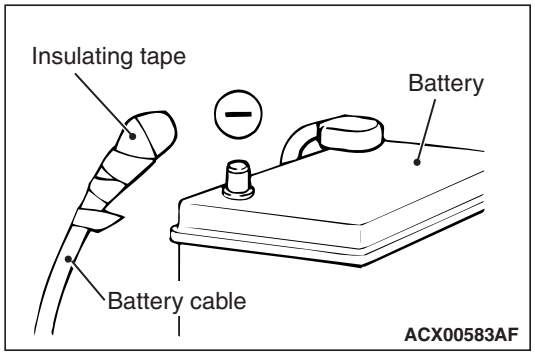
- MB991958: Scan Tool (M.U.T.-III Sub Assembly)
  - MB991824:Vehicle Communication Interface(V.C.I.)
  - MB991827:M.U.T.-III USB Cable
  - MB991910:M.U.T.-III Main Harness A

REMOVAL SERVICE POINTS

<<A>> NEGATIVE (-) BATTERY CABLE DISCONNECTION

⚠ DANGER

Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-24).

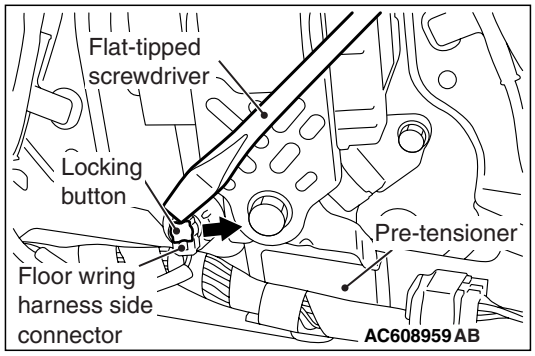


⚠ WARNING

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

Disconnect the negative (-) battery cable from the battery and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.

<<B>> SEAT BELT PRE-TENSIONER CONNECTOR DISCONNECTION



Use a flat-tipped screwdriver to unlock the locking button of the floor wiring harness side connector. After releasing the lock, disconnect the connector.

<<C>> SEAT BELT WITH PRE-TENSIONER REMOVAL

⚠ CAUTION
When discarding the seat belt with pre-tensioner, discard after operating the pre-tensioner as specified in the service procedure (Refer to P.52B-393).

INSTALLATION SERVICE POINTS

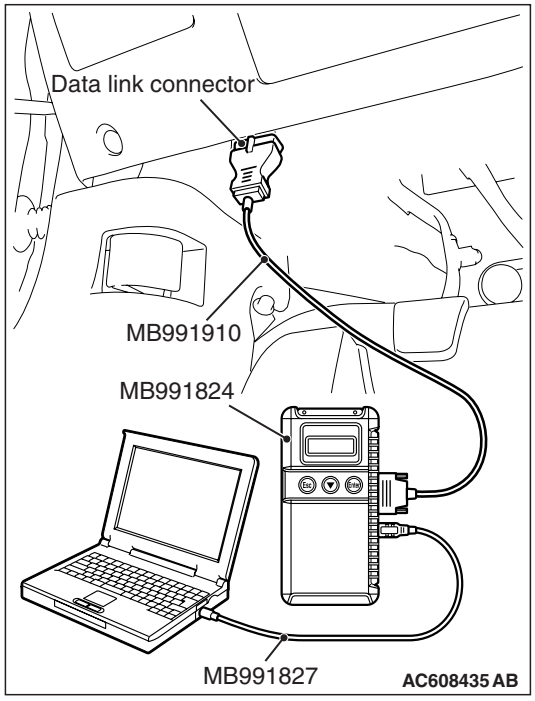
>>A<< PRE-INSTALLATION INSPECTION

⚠ WARNING
Dispose of seat belt pre-tensioner only according to the specified procedure (Refer to P.52B-393).

1. When installing the new seat belt pre-tensioner, refer to "INSPECTION" (P.52B-392).
2. Connect the negative (−) battery cable.

⚠ CAUTION
To prevent damage to scan tool MB991958, always turn the ignition switch to the "LOCK" (OFF) position before connecting or disconnecting scan tool MB991958.

3. Connect scan tool MB991958 to the data link connector.
4. Turn the ignition switch to the "ON" position.
5. Check DTCs using scan tool MB991958 to ensure entire SRS operates properly.
   At this time, check that no DTC except B1C35, B1C3A and B1C49 are set.



⚠ DANGER
Wait at least 60 seconds after disconnecting the battery cable before doing any further work (Refer to P.52B-24).

⚠ WARNING
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

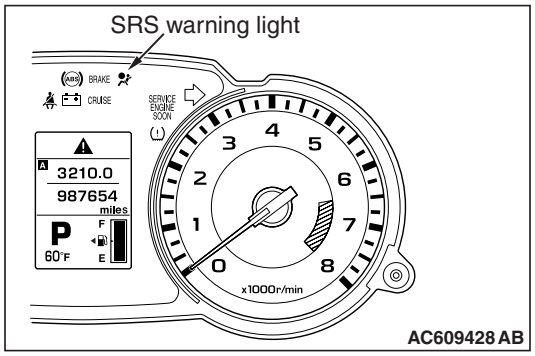
6. Turn the ignition switch to the "LOCK" (OFF) position. Disconnect the negative (−) battery cable and tape the terminal to prevent accidental connection and seat belt pre-tensioner operation.

>>B<< PRE-TENSIONER CONNECTOR CONNECTION

Connect the pre-tensioner connector then securely lock the locking button of the harness-side connector.

>>C<< POST-INSTALLATION INSPECTION

1. Reconnect the negative (−) battery cable.
2. Turn the ignition switch to the "ON" position.



3. Does the "SRS" warning light illuminate for approximately seven seconds, and go out?
4. If yes, the SRS system is functioning properly. If not, refer to P.52B-31.

INSPECTION

M1524004200579

SEAT BELT WITH PRE-TENSIONER CHECK

⚠ WARNING

- ***If any component damage is found during the following inspection, replace the seat belt with pre-tensioner with a new one. Dispose of the old one according to the specified procedure (Refer to P.52B-393).***
- ***Never attempt to measure the circuit resistance of the seat belt pre-tensioner even if you are using the specified tester. If the circuit resistance is measured with a tester, accidental seat belt pre-tensioner operation will result in serious personal injury.***

1. Check seat belt pre-tensioner for dents, cracks or deformation.
2. Check the connectors for damage, the terminals for deformation, and the harness for binding.

AIR BAG MODULE AND SEAT BELT PRE-TENSIONER DISPOSAL PROCEDURES

M1524001201357

Before disposing of an air bag or a vehicle equipped with an air bag, follow the procedures below to deploy the air bag.

UNDEPLOYED AIR BAG MODULE DISPOSAL

Required Special Tools:

- MB992102: Air Bag Inflation Adapter Harness
- MB991885: Adapter Harness

⚠ ***WARNING***

- ***If the vehicle is to be scrapped or otherwise disposed of, deploy the air bags and operate the seat belt pre-tensioners inside the vehicle. If the vehicle will continue to be used and only the air bag modules and seat belt pre-tensioner are to be disposed of, deploy the air bags and operate the seat belt pre-tensioners outside the vehicle.***
- ***Since a large amount of smoke is produced when the air bag is deployed and the seat belt pre-tensioner is operated, avoid residential areas whenever possible.***
- ***Since there is a loud noise when the air bags are deployed and when the seat belt pre-tensioners are operated, avoid residential areas whenever possible. If anyone is nearby, give warning of the impending noise.***
- ***Suitable ear protection should be worn by personnel performing these procedures or by people in the immediate area.***

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <DRIVER'S AIR BAG MODULE>

1. Move the vehicle to an isolated spot.

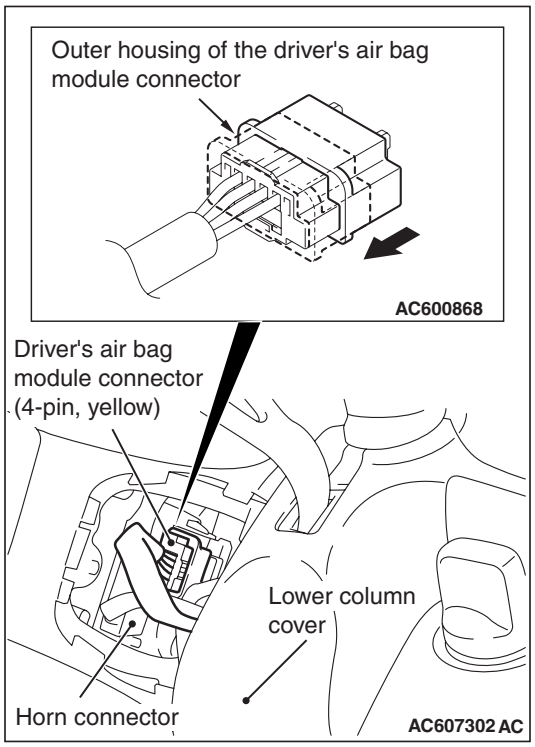
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-24).

⚠ ***WARNING***

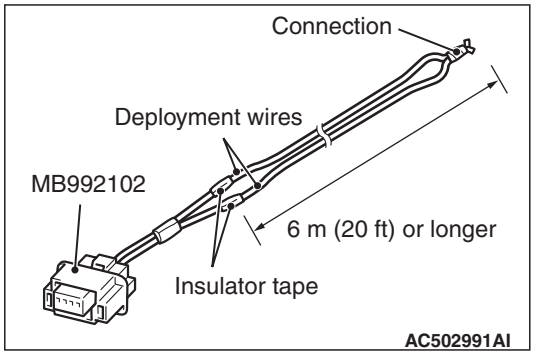
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

2. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the cover (Refer to P.52B-367).


Outer housing of the driver's air bag module connector
AC600868
Driver's air bag module connector (4-pin, yellow)
Lower column cover
Horn connector
AC607302 AC

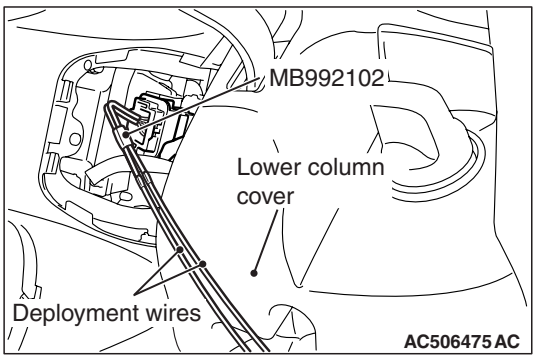
4. Slide the outer housing of the driver's air bag module connector in the arrow direction shown, and disconnect the connector.

   NOTE: When the driver's air bag module connector is disconnected from the inflator, the four pins of inflator connector are automatically shorted. This prevents the unintentional deployment of driver's air bags caused by the static or others.



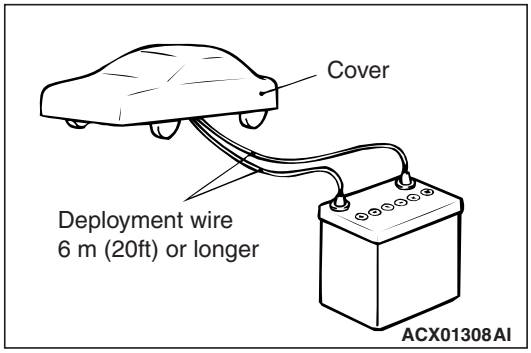
5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB992102, and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

   NOTE: This prevents the air bags from being unintentionally deployed because of the static and others.



6. Connect the special tool MB992102 to the driver's air bag module, and then pull out the deployment wire to outside the vehicle.

⚠ WARNING
If the windshield glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.



7. To suppress the sound as much as possible, completely close all door windows, close the doors and put a cover on the vehicle.

⚠ ***WARNING***

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. After deployment, dispose of the air bag module according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <PASSENGER'S (FRONT) AIR BAG MODULE>

1. Move the vehicle to an isolated spot.

⚠ ***DANGER***

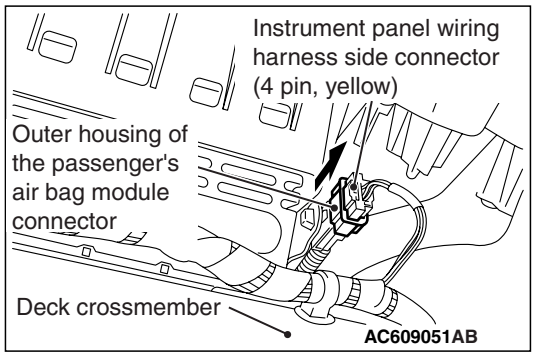
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-24).

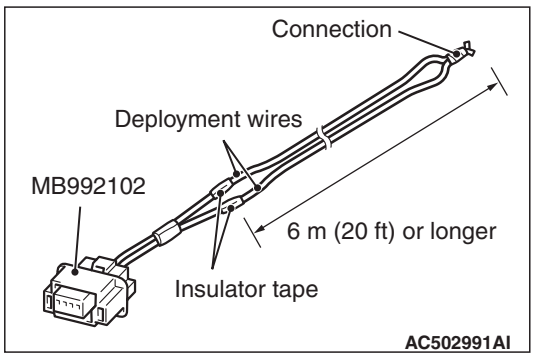
⚠ ***WARNING***

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

2. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the glove box cover (Refer to GROUP 52A, Glove Box P.52A-5).
4. Slide the outer housing of passenger's (front) air bag module connector in the arrow direction shown, and disconnect the connector.

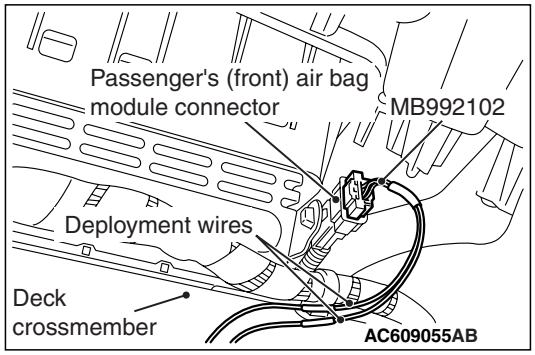
   NOTE: When the passenger's (front) air bag module connector is disconnected from the instrument panel wiring harness side connector, the four pins of inflator connector are automatically shorted. This prevents the unintentional deployment of passenger's (front) air bags caused by the static or others.


Instrument panel wiring harness side connector (4 pin, yellow)
Outer housing of the passenger's air bag module connector
Deck crossmember
AC609051AB

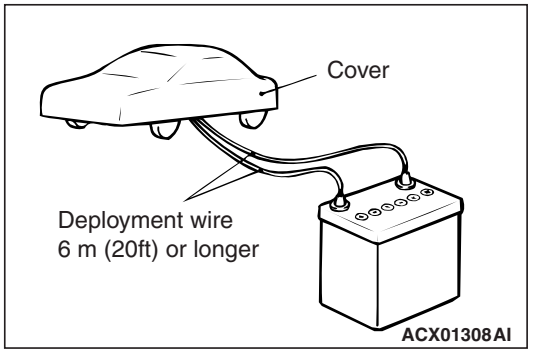


5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB9921020, and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

   NOTE: This prevents the unintentional deployment of passenger's (front) air bags caused by the static or others.



6. Connect the special tool MB992102 to the passenger's (front) air bag module, and then pull out the deployment wire to outside the vehicle.



⚠ WARNING

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the operation sound as much as possible, completely close all door windows, close the doors and put a cover on the vehicle.

⚠ WARNING

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415) for post-deployment handling instructions.***
- ***If the air bag module fails to deploy, do not go near the module.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. After deployment, dispose of the air bag module according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <KNEE AIR BAG MODULE>

1. Move the vehicle to an isolated spot.

⚠ DANGER

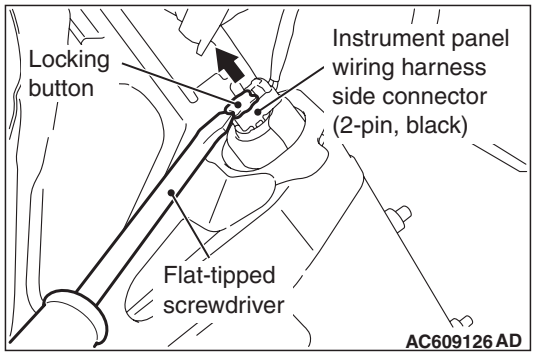
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-24).

⚠ WARNING

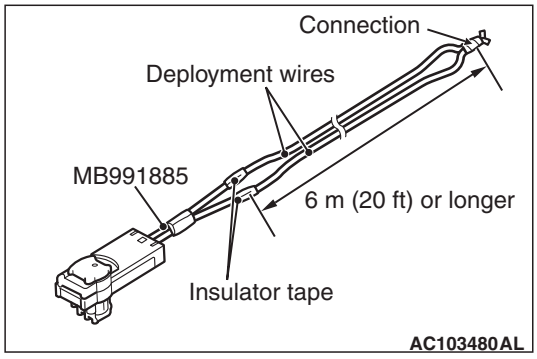
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

2. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the instrument panel lower cover (Refer to GROUP 52A, Instrument lower panel P.52A-7).
4. Use the flat-tipped screwdriver to pull out the locking button of knee air bag harness side connector. After releasing the lock, disconnect the connector.

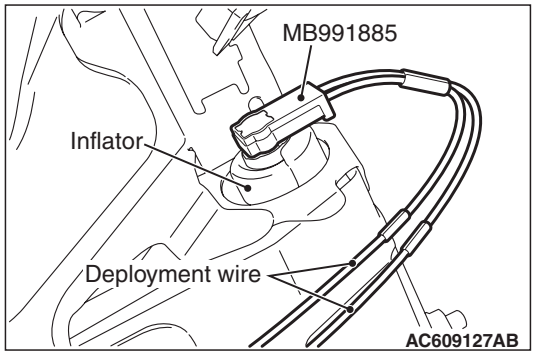
   NOTE: If the knee air bag module connector is disconnected from the instrument panel wiring harness side connector, both electrodes of the knee air bag module connector will be automatically shorted to prevent unintended deployment of the knee air bag module due to static electricity, etc.

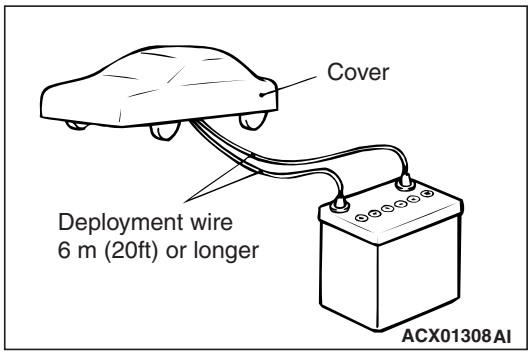


5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB991885, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the curtain air bag module.



6. Connect the special tool MB991885 to the inflator, and then pull out the deployment wire to outside the vehicle.





⚠ ***WARNING***

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the deployment sound as much as possible, completely close all door windows, close the doors and put the cover on the vehicle.

⚠ ***WARNING***

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415) for post-operation handling instructions.***
- ***If the air bag module fails to deploy, do not go near the air bag module.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each the, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. After deployment, dispose of the air bag module according to the Deployed Air Bag Module and Operated Seat belt Pre-tensioner Disposal (Refer to P.52B-415).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <SIDE-AIRBAG MODULE>

1. Move the vehicle to an isolated spot.

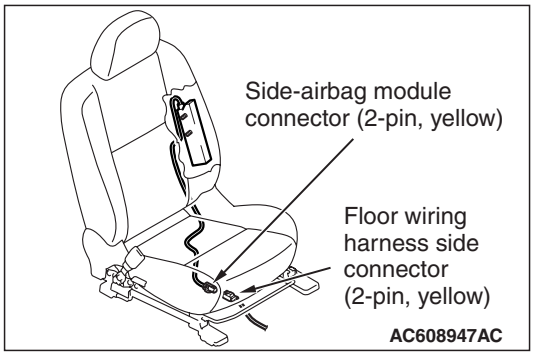
⚠ ***DANGER***

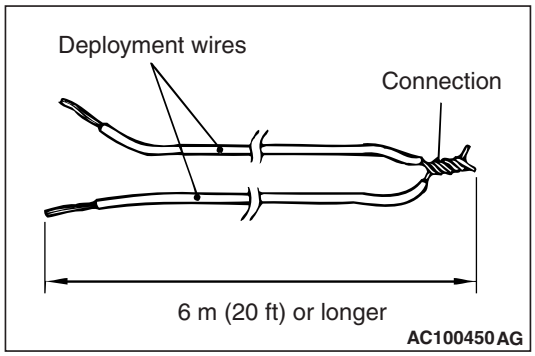
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-24).

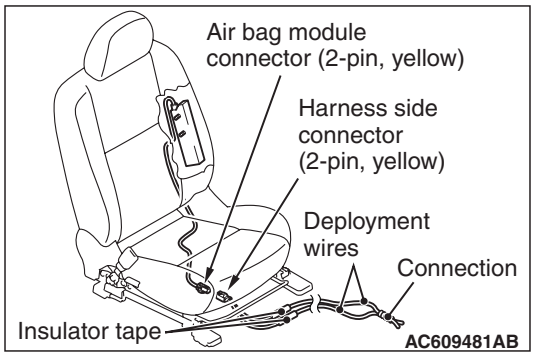
⚠ ***WARNING***

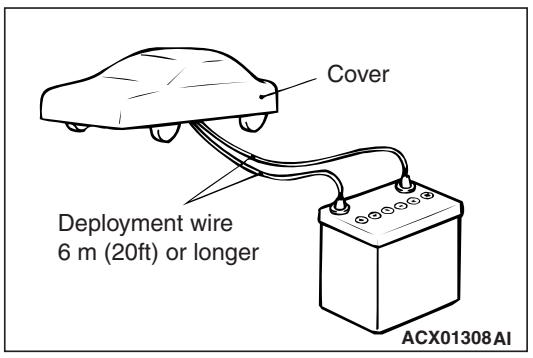
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

2. Disconnect the (−) and (+) terminals of battery cable, and then remove the battery from the vehicle.









3. Disconnect the connections of the side-airbag module connector (two-pin: yellow) and the floor harness side connector (two-pin: yellow).

⚠ CAUTION

Make sure to deploy both driver's and front passenger's side air bags.

NOTE: When the side-airbag module connector is disconnected from the floor wiring harness side connector, the two pins of side air bag module connector are automatically shorted. This prevents the unintentional deployment of side-airbags caused by the static or others.

4. Obtain two suitable wires, which are 6 meters (20 feet) or longer, as deployment wires. Then connect the wires at one end to short.

   NOTE: This prevents the side-airbags from unintentional deployment caused by static electricity, etc.

⚠ CAUTION

Never fail to do Step 5 in order to prevent accidental deployment caused by static.

5. Touch the vehicle body with bare hands to release the charged static.
6. With the side-airbag module connector disconnected, cut the floor harness using a nipper or similar tools.
7. Connect the deployment wire to each of two cut wiring harnesses. After covering the connection areas with insulation tape, pull out the deployment wire to outside the vehicle.
8. Connect the floor harness, to which the deployment wire is connected, to the side-airbag module connector.

⚠ WARNING

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

9. To suppress the operation sound as much as possible completely close all door windows, close the doors and put the cover on the vehicle.

⚠ ***WARNING***

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415) for post-deployment handling instructions.***
- ***If the side-airbag module fails to deploy, do not go near the module.***

10. At a location as far away from the vehicle as possible, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the side-airbag.
11. After deployment, dispose of the front seatback assembly (side-airbag module) according to the Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <CURTAIN AIR BAG MODULE>

1. Move the vehicle to an isolated spot.

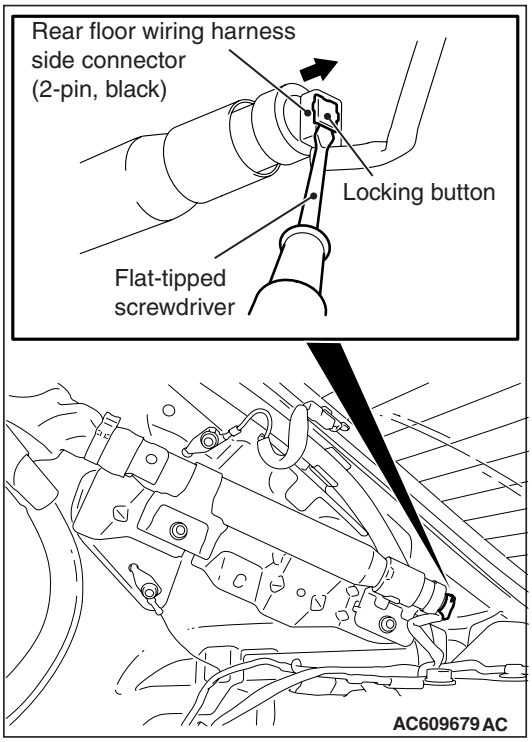
⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-24).

⚠ ***WARNING***

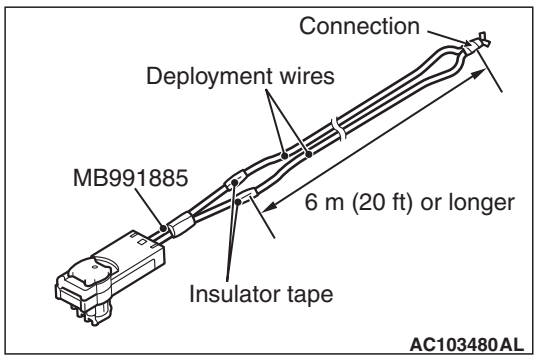
Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

2. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the headlining (Refer to GROUP 52A, Headlining P.52A-15).

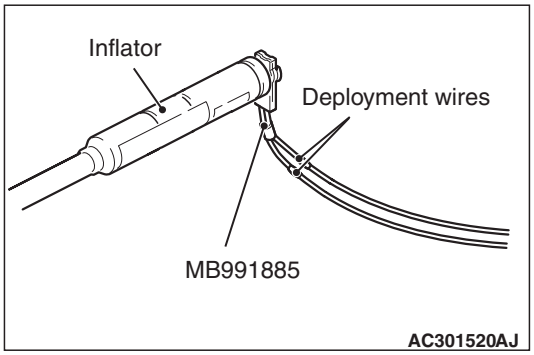


4. Use the flat-tipped screwdriver to pull out the locking button of rear floor harness side connector. After releasing the lock, disconnect the connector.

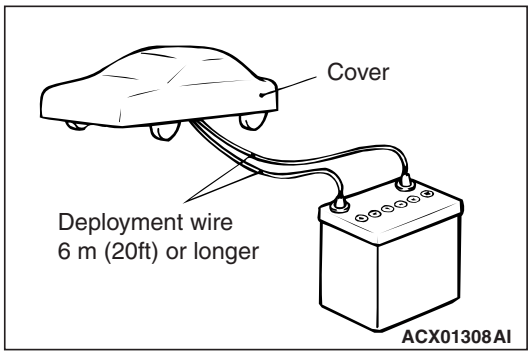
   NOTE: If the curtain air bag module connector is disconnected from the rear floor wiring harness side connector, both electrodes of the curtain air bag module connector will be automatically shorted to prevent unintended deployment of the curtain air bag module due to static electricity, etc.



5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB991885, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the curtain air bag module.



6. Connect the special tool MB991885 to the inflator, and then pull out the deployment wire to outside the vehicle.



⚠ *WARNING*

If the glass is scratched, air bag deployment could cause it to crack and fly out of the vehicle, so always put a cover over the vehicle.

7. To suppress the deployment sound as much as possible, completely close all door windows, close the doors and put the cover on the vehicle.

⚠ ***WARNING***

- ***Before deploying the air bag in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415) for post-operation handling instructions.***
- ***If the air bag module fails to deploy, do not go near the air bag module.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each the, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. After deployment, dispose of the air bag module according to the Deployed Air Bag Module and Operated Seat belt Pre-tensioner Disposal (Refer to P.52B-415).

DEPLOYMENT INSIDE THE VEHICLE (WHEN DISPOSING OF A VEHICLE) <SEAT BELT PRE-TENSIONER>

1. Move the vehicle to an isolated spot.

⚠ ***DANGER***

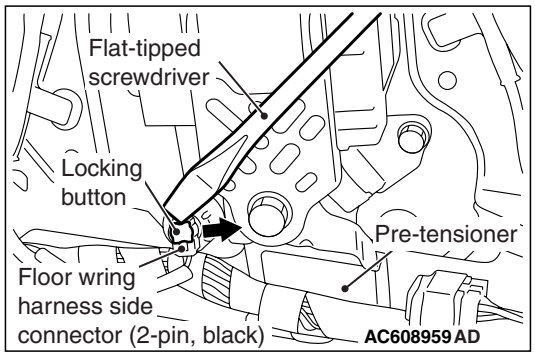
Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-24).

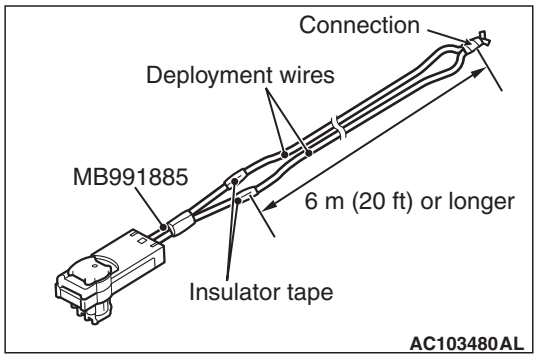
⚠ ***WARNING***

Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.

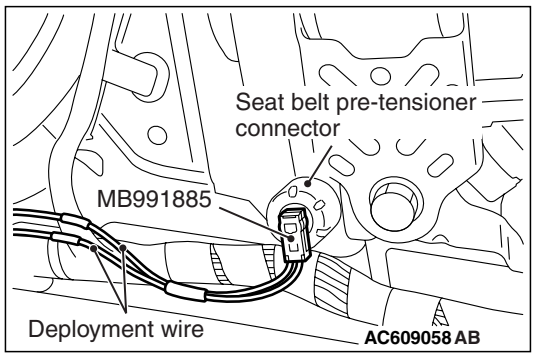
2. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.
3. Remove the lower center pillar trim (Refer to GROUP 52A, Trims P.52A-10).
4. Use the slotted (−) screwdriver to pull out the locking button of floor harness side connector. After releasing the lock, disconnect the connector.

   NOTE: If the seat belt pre-tensioner connector is disconnected from the floor wiring harness side connector, both electrodes of the seat belt pre-tensioner connector will be automatically shorted to prevent unintended operation of the seat belt pre-tensioner due to static electricity, etc.





5. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB991885, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected operation of the seat belt pre-tensioner.



6. Connect the special tool MB991885 to the two-pin connector of seat belt pre-tensioner, and then pull out the deployment wire to outside the vehicle.
7. In order to suppress the operation sound as much as possible, fully close all the door windows and close the doors.

⚠ WARNING

- ***Before operating the seat belt pre-tensioner in this manner, first check to be sure that there is no one in or near the vehicle. Wear safety glasses.***
- ***The inflator will be quite hot immediately following the operation, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from the seat belt pre-tensioner operation. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415) for post-operation handling instructions.***
- ***If the seat belt pre-tensioner fails to operate, do not go near the seat belt pre-tensioner.***

8. At a location as far away from the vehicle as possible, disconnect the two connected wires from each the, and connect them to the two terminals of the battery (which has been removed from the vehicle) to operate the seat belt pre-tensioner.
9. After operation, dispose of the seat belt pre-tensioner according to the Deployed Air Bag Module operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415).

DEPLOYMENT OUTSIDE THE VEHICLE <DRIVER'S AIR BAG MODULE>

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-24).

⚠ ***WARNING***

- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

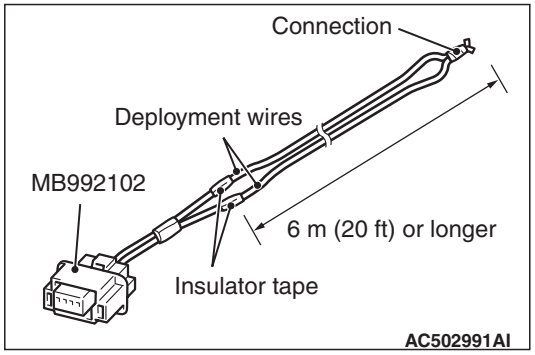
1. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

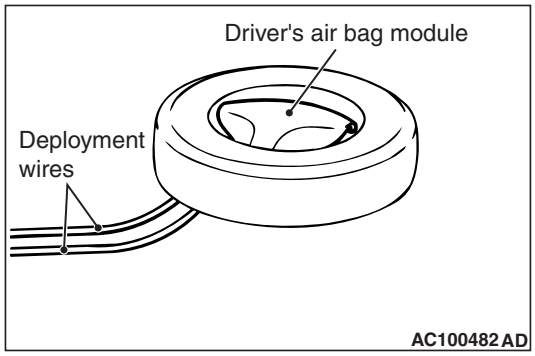
⚠ **CAUTION**

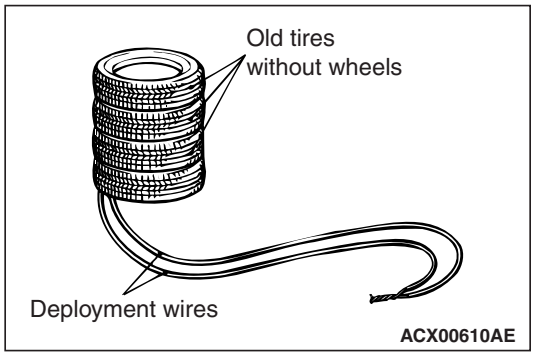
Once disconnected, both electrodes of the driver's air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the air bag module on a flat place with deployment surface facing up. Do not put anything on it.

2. Remove the air bag module from the vehicle (Refer P.52B-367
3. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB992102, and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

   NOTE: This prevents the air bags from being unintentionally deployed because of the static and others.
4. Connect the special tool MB992102 to the driver's air bag module.
5. To the torx screw installation hole located at the backside of air bag module, tie a thick wire for fixing the wheel.
6. Route the deployment wires connected to the driver's air bag module beneath an old tire and wheel assembly. Then, using the wire tied to the bolt, secure the driver's air bag module to the tire and wheel assembly with the deployment surface facing up.



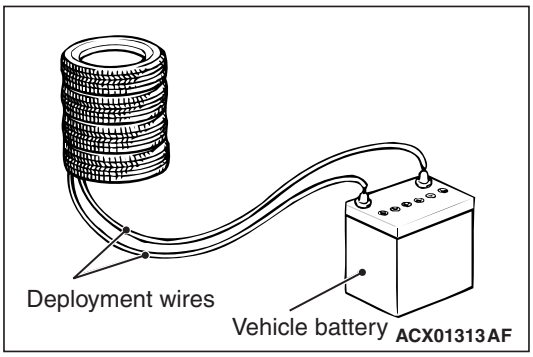




7. Place three old tires without wheels on the tire secured with the driver's air bag module.

⚠ ***WARNING***

- ***Before deployment, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module.***



8. At a location as far away from the air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them, to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. Discard the deployed air bag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415).

DEPLOYMENT OUTSIDE THE VEHICLE <PASSENGER'S (FRONT) AIR BAG MODULE>

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-24).

⚠ ***WARNING***

- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

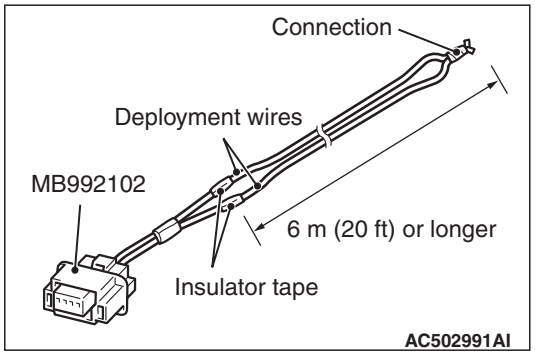
1. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

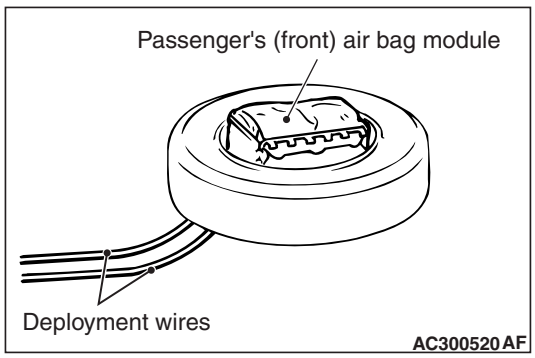
⚠ **CAUTION**

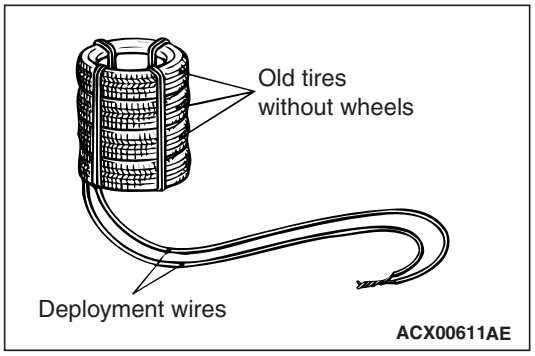
Once disconnected, both electrodes of the passenger's (front) air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of possible accidental deployment, store the air bag module on flat place with deployment surface facing up. Do not put anything on it.

2. Remove the air bag module from the vehicle (Refer to P.52B-367).
3. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB992102, and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

   NOTE: This prevents the air bags from being unintentionally deployed because of the static and others.
4. Connect the special tool MB992102 to the passenger's (front) air bag module.
5. Pass the thick wire through the hole of air bag module mounting bracket. When, with the air bag module deployment surface facing upward, fit the module to the old tire with wheel.



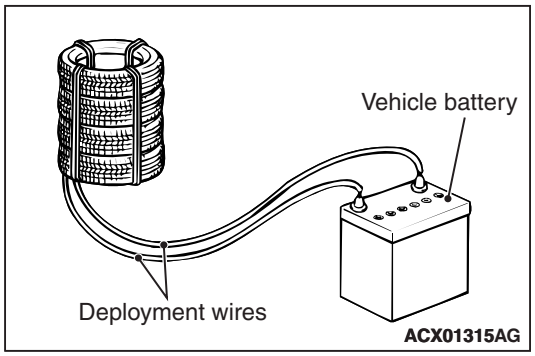




6. Place three old tires without wheels on top of the tire secured to the air bag module, and secure all tires together with ropes (four locations).

⚠ ***WARNING***

- ***Before deployment, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module.***



7. At a location as far away from the air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
8. Discard the deployed air bag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415).

DEPLOYMENT OUTSIDE THE VEHICLE <KNEE AIR BAG MODULE>

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-24).

⚠ ***WARNING***

- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

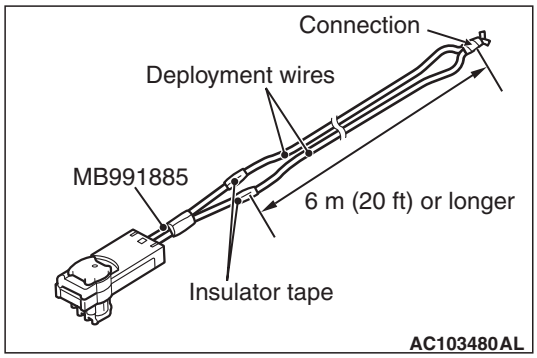
1. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

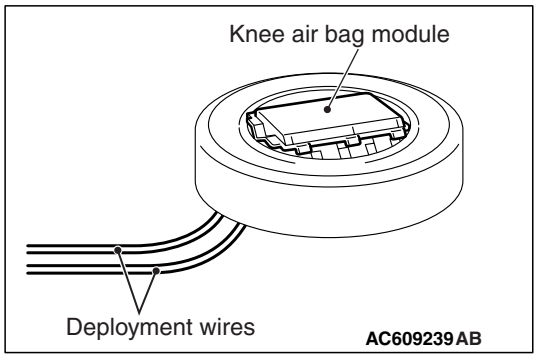
⚠ **CAUTION**

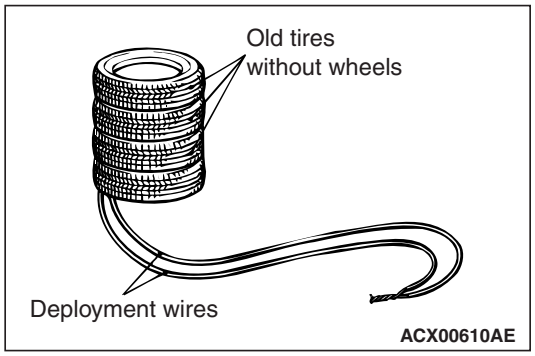
Once disconnected, both electrodes of the knee air bag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of possible accidental deployment, store the air bag module on flat place with deployment surface facing up. Do not put anything on it.

2. Remove the air bag module from the vehicle (Refer to P.52B-378).
3. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB991885, and cover the connections with insulator tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

   NOTE: This prevents the air bags from being unintentionally deployed because of the static and others.
4. Connect the special tool MB991885 to the knee air bag module.
5. Pass the thick wire through the hole of air bag module mounting bracket. When, with the air bag module deployment surface facing upward, fit the module to the old tire with wheel.



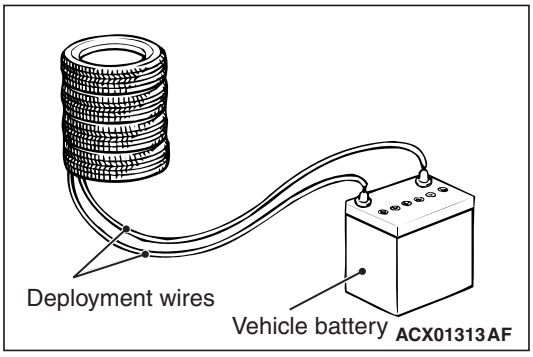




6. Place three old tires without wheels on the tire secured with the knee air bag module.

⚠ ***WARNING***

- ***Before deployment, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415) for post-deployment handling instructions.***
- ***If the air bag fails to deploy, do not go near the module.***



7. At a location as far away from the air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
8. Discard the deployed air bag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415).

DEPLOYMENT OUTSIDE VEHICLE <SIDE-AIR BAG MODULE>

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-24).

⚠ ***WARNING***

- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the side-airbag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the side-airbag module downwind from the battery.***

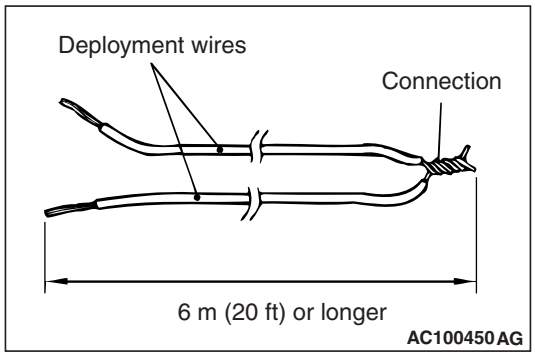
1. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ **CAUTION**

Once disconnected, both electrodes of the side-airbag module connector short automatically to prevent accidental deployment caused by static etc. Still, in consideration of the accidental deployment, store the side-airbag module on flat place with deployment surface facing up. Also, do not put anything on it.

2. Remove the side-airbag module from the front seat assembly incorporated in the side-airbag (Refer to GROUP 52A, Front Seat Assembly P.52A-21).
3. Obtain two suitable wires, which are 6 meters (20 feet) or longer, as deployment wires. Then connect the wires at one end to short.

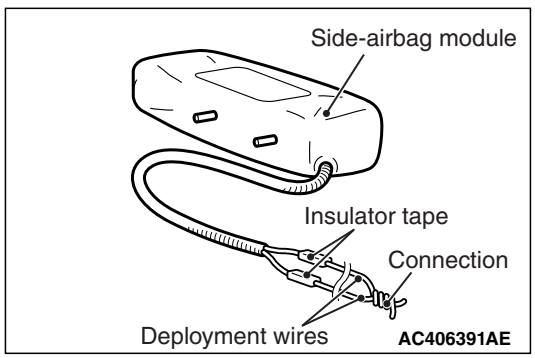
   NOTE: This prevents the side-airbags from unintentional deployment caused by static electricity, etc.

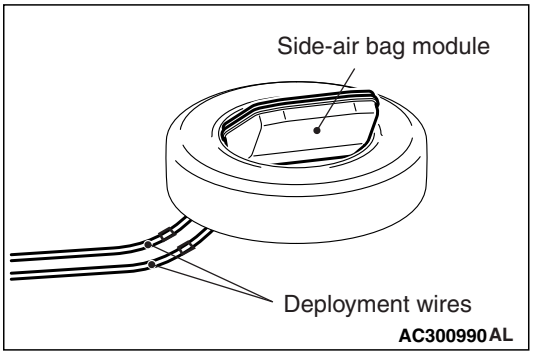


⚠ **CAUTION**

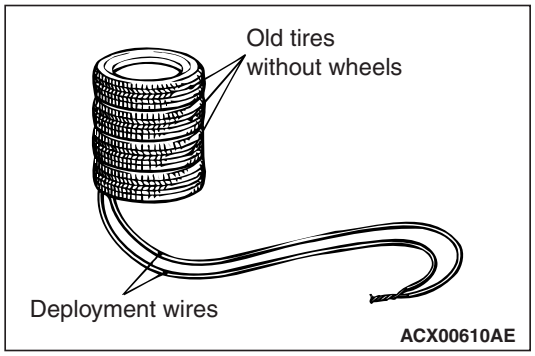
Never fail to do Step 4 in order to prevent accidental deployment caused by static.

4. Touch the vehicle body with bare hands to release the charged static.
5. Cut off the side-airbag module wiring harness connector from the wiring harness with nippers. Connect the deployment wire to each of the two cut wiring harnesses, and cover the connection areas with insulation tape.





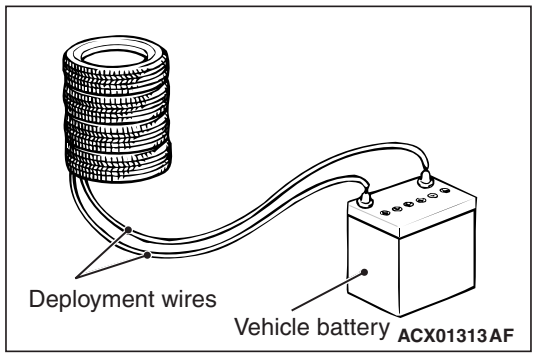
6. Pass the deployment wire under the tire with wheel, and connect it to the side-airbag module connector.
7. Install a surplus nut to the side-airbag module bolt. Then, tie a thick wire for fixing the wheel to the bolt. Fix the side-airbag module to the wheel of old tire with the module deployment surface facing upward.



8. Place three old tires without wheels on the tire secured with the side-airbag module.

⚠ WARNING

- ***Before deployment, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415) for post-deployment handling instructions.***
- ***If the side-airbag fails to deploy, do not go near the module.***



9. At a location as far away from the side-airbag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
10. Discard the deployed side-airbag module as specified in Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415).

DEPLOYMENT OUTSIDE THE VEHICLE <CURTAIN AIR BAG MODULE>

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-24).

⚠ ***WARNING***

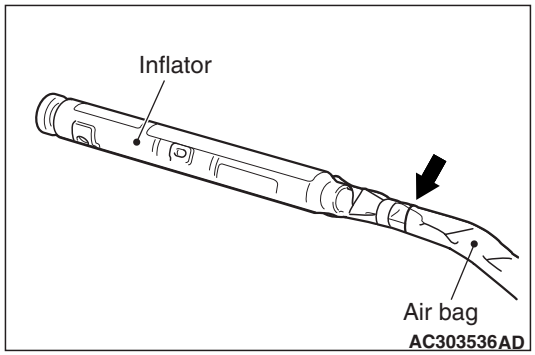
- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Deploy the air bag in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform deployment outside if a strong wind is blowing. If there is a slight breeze, place the air bag module downwind from the battery.***

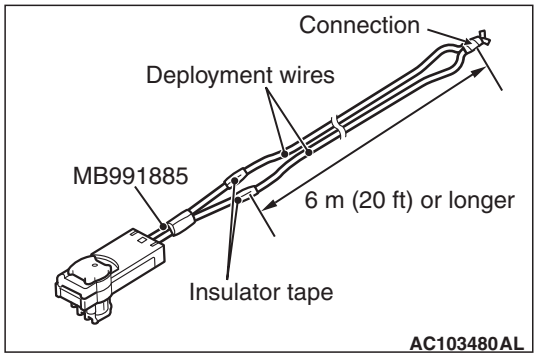
1. Disconnect the negative (−) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ ***WARNING***

Store the curtain air bag module on a flat surface with its operation surface facing up. Do not place anything on top of them.

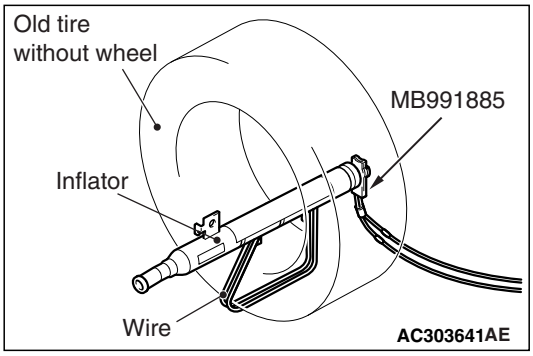
2. Remove the curtain air bag module from the vehicle (Refer to P.52B-385).
3. Cut the inflator from the air bag as shown in the figure using a cutter or a similar tool.



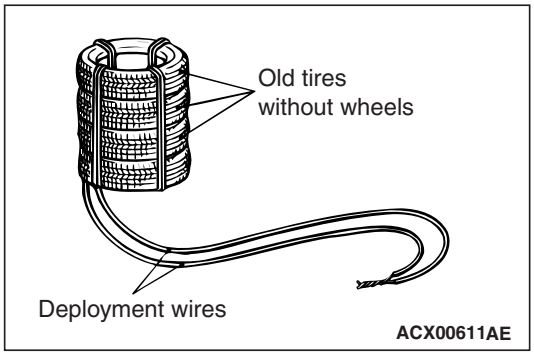


4. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB991885, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected deployment of the air bag module.

   NOTE: This prevents the air bags from being unintentionally deployed because of the static and others.
5. Connect the special tool MB991885 to the curtain air bag module.



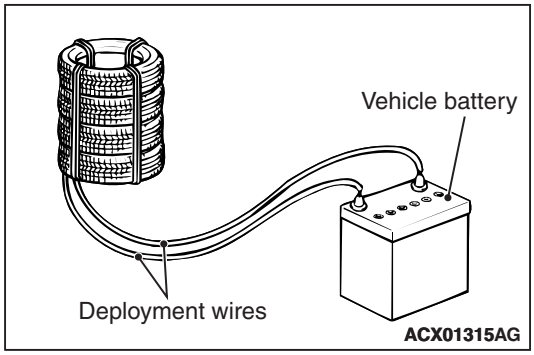
6. Feed a thick wire through the bracket of the inflator, and connect it to an old tire without a wheel.



7. Place the tire to which the inflator is fixed onto the two stacked tires. Then, place 1 or more old tires without wheel onto the stacked tires, and tie and fix all the tires with rope. (4 positions)

⚠ WARNING

- ***Before operation, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the deployment, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from air bag deployment. See Deployed Air Bag Module and Operated Seat Belt Pre-tensioner Disposal (Refer to P.52B-415) for post-operation handling instructions.***
- ***If the air bag fails to deploy, do not go near the module.***



8. At a location as far away from the air bag module as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to deploy the air bag.
9. Discard the deployed air bag module as specified in Deployed Air Bag Module and Seat Belt Pre-tensioner Disposal (Refer to P.52B-415).

DEPLOYMENT OUTSIDE THE VEHICLE <SEAT BELT PRE-TENSIONER>

⚠ ***DANGER***

Wait at least 60 seconds after disconnecting the battery cables before doing any further work (Refer to P.52B-24).

⚠ ***WARNING***

- ***Battery posts, terminals and related accessories contain lead and lead compounds. WASH HANDS AFTER HANDLING.***
- ***Operate the seat belt pre-tensioner in a wide, flat area at least 6 meters (20 feet) away from obstacles and other people.***
- ***Do not perform operation outside if a strong wind is blowing. If there is a slight breeze, place the seat belt pre-tensioner downwind from the battery.***

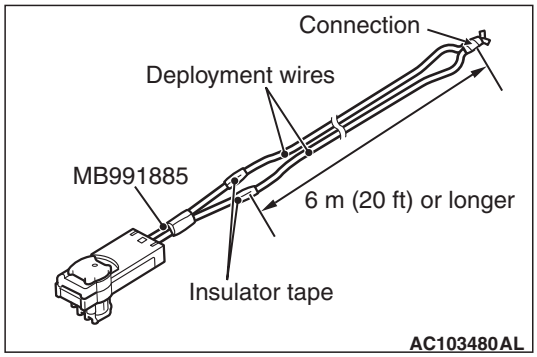
1. Disconnect the negative (–) and positive (+) battery cables from the battery terminals, and then remove the battery from the vehicle.

⚠ ***WARNING***

Store the seat belt pre-tensioner on a flat surface with its operation surface facing up. Do not place anything on top of them.

2. Remove the seat belt pre-tensioner from the vehicle (Refer to P.52B-389).
3. Connect deployment wires, each 6 meters (20 feet) or longer, to the two leads of special tool MB991885, and cover the connections with insulation tape. The other ends of the deployment wires should be connected to each other (short-circuited), to prevent sudden unexpected operation of the seat belt pre-tensioner.

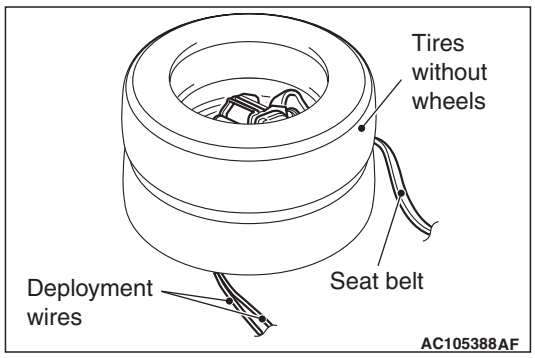
   NOTE: This prevents the unintentional activation of inflator caused by the static or others.
4. Connect the special tool MB991885, which the deployment wires is attached to, to the seat belt pre-tensioner connector.

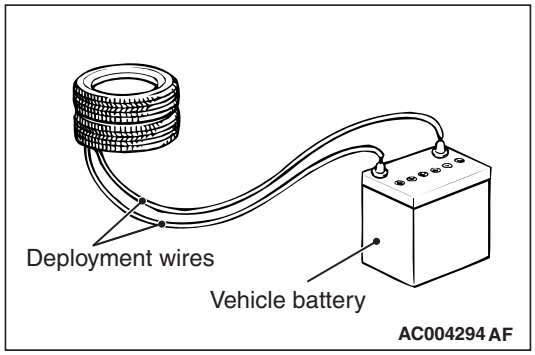


⚠ **CAUTION**

The adapter harness below the wheel should be loose. If it is too tight, the reaction when the seat belt pre-tensioner operates could damage the adapter harness.

5. Pass the thick wires through the hole on the seat belt pre-tensioner bracket and secure them to the front (raised part) of the wheel in two places.





6. Pull the seat belt out to the outside of the tire, and then place one tire without a wheel on top.

⚠ ***WARNING***

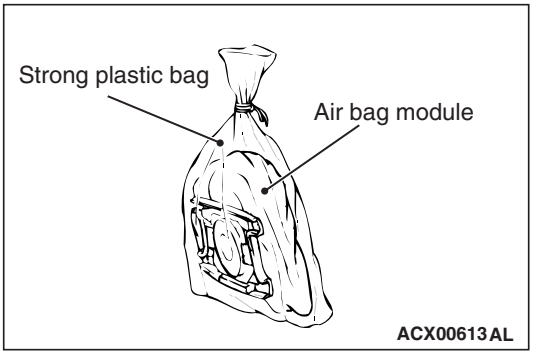
- ***Before operation, check carefully to be sure that no one is nearby.***
- ***The inflator will be quite hot immediately following the operation, so wait at least 30 minutes to allow it to cool before attempting to handle it. Although not poisonous, do not inhale gas from seat belt pre-tensioner operation. See Deployed Air Bag Module and Operated Seat Belt pre-tensioner Disposal (Refer to P.52B-415) for post-operation handling instructions.***
- ***If the seat belt pre-tensioner fails to operate, do not go near the seat belt pre-tensioner.***

7. At a location as far away from the seat belt pre-tensioner as possible, and from a shielded position, disconnect the two connected wires from each other, and connect them to the two terminals of the battery (which has been removed from the vehicle) to operate the seat belt pre-tensioner.
8. Discard the operated seat belt pre-tensioner as specified in Deployed Air Bag Module and Seat Belt pre-tensioner Disposal (Refer to P.52B-415).

DEPLOYED AIR BAG MODULE AND OPERATED SEAT BELT PRE-TENSIONER DISPOSAL

After deployment and operation, the air bag module and seat belt pre-tensioner should be disposed of in the same manner as any other scrap parts, adhering to local laws and/or legislation. Observe the following precautions during air bag or seat belt pre-tensioner disposal:

1. The inflator will be quite hot immediately following deployment, so wait at least 30 minutes to allow it cool before attempting to handle it.
2. Do not put water or oil on the air bag after deployment or on the seat belt pre-tensioner after operation.



⚠ ***WARNING***

If after following these precautions, any material does get into the eyes or on the skin, immediately rinse the affected area with a large amount of clean water. If any irritation develops, seek medical attention.

3. There may be material on the deployed air bag module or the operated seat belt pre-tensioner, that could irritate the eye and/or skin. Wear gloves and safety glasses when handling a deployed air bag module or the operated seat belt pre-tensioner.
4. Tightly seal the air bag module and seat belt pre-tensioner in a strong plastic bag for disposal.
5. Be sure to always wash your hands after completing this operation.